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July 20, 2012

Ms. Kirsten Walli
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Dear Ms. Walli:

**RE: Application by Canadian Distributed
 Antenna Systems Coalition ("CANDAS");
 Board File No.: EB-2011-0120**

Pursuant to Procedural Order No. 11 dated June 19, 2012 and the Board's letter dated July 19, 2012, the Applicant, CANDAS, submits for filing on behalf of itself and Toronto Hydro Electric Systems Limited ("THESL"), the enclosed joint written statement of Patricia Kravtin, Johanne Lemay, Michael Starkey and Adonis Yatchew, with respect to policy and economic issues.

CANDAS and THESL regret the delay in the filing of the enclosed and apologise for any inconvenience that this may cause.

Yours very truly,

(signed) H.T. Newland

YMS/bac

cc: All Intervenors

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, (Schedule B);

AND IN THE MATTER OF an application by Canadian Distributed Antenna Systems Coalition for certain orders under the *Ontario Energy Board Act, 1998*.

Joint Written Statement

Johanne Lemay
Patricia Kravtin
Michael Starkey
Adonis Yatchew

July 20, 2012

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PREAMBLE

1. This joint written statement is filed by Patricia Kravtin, Johanne Lemay, Michael Starkey and Dr. Adonis Yatchew (collectively, the “**Experts**”) with the Ontario Energy Board (“the **Board**”) in connection with an application by the Canadian Distributed Antenna Systems Coalition (“**CANDAS**”) on behalf of its members, received on April 25, 2011 and subsequently amended by letters dated May 3 and June 7, 2011 (Board Docket Number EB-2011-0120) (the “**Application**”), seeking the following orders of the Board:

“(a) Orders under subsections 70(1.1) and 74(1) of the Ontario Energy Board Act, 1998 (the “**Act**”): (i) determining that the Board’s RP-2003-0249 Decision and Order dated March 7, 2005 (the “**CCTA Order**”) requires electricity distributors to provide “Canadian carriers”, as that term is defined in the Telecommunications Act, S.C. 1993, c. 38, with access to electricity distributor’s poles for the purpose of attaching wireless equipment, including wireless components of distributed antenna systems (“**DAS**”); and (ii) directing all licensed electricity distributors to provide access if they are not so doing;

(b) in the alternative, an Order under subsection 74(1) of the Act amending the licences of all electricity distributors requiring them to provide Canadian carriers with timely access to the power poles of such distributors for the purpose of attaching wireless equipment, including wireless components of DAS;
...

(e) an Order under subsections 74(1) and 70(2)(c) of the Act amending the licences of all licensed electricity distributors requiring them to include, in their Conditions of Service, the terms and conditions of access to power poles by Canadian carriers, including the terms and conditions of access for the purpose of deploying the wireless and wireline components of DAS, such terms and conditions to provide for, without limitation: commercially reasonable procedures for the timely processing of applications for attachments and the performance of the work required to prepare poles for attachments (“**Make Ready Work**”); technical requirements that are consistent with applicable safety regulations and standards; and a standard form of licensed occupancy agreement, such agreement to provide for attachment permits with terms of at least 15 years from the date of attachment and for commercially reasonable renewal rights;

(f) its costs of this proceeding in a fashion and quantum to be decided by the Board pursuant to section 30 of the Act; and

(g) such further and other relief as the Board may consider just and reasonable.”

2. Pursuant to Procedural Order No. 11 dated June 19, 2012, the Experts met and conferred with respect to policy and economic issues. Mr. Ken Rosenberg acted as facilitator for the expert pre-hearing conference. Board staff and counsel for CANDAS and THESL also attended the expert pre-hearing conference.

3. The parties and Experts understand that the expert pre-hearing conference is subject to the rules relating to confidentiality and privilege contained in the Board's *Settlement Conference Guidelines* (the "**Guidelines**"). The parties understand this to mean that the documents and other information provided, and the discussion of each issue during the expert pre-hearing conference, are strictly confidential and without prejudice.
4. Outlined below is a summary of the Experts' positions on economic and policy issues.

SUMMARY OF POSITIONS

Lemay / Kravtin

Starkey / Yatchew

1. What are the guiding principles governing mandated access to utility poles?

The relevant standard for regulation of monopoly pole assets is a public interest standard that achieves: (1) efficient use and avoids undesirable duplication of utility poles; (2) avoids cross-subsidy (as measured against the underlying cost of service and not the excessive "market" price the utility can extract, given its market power); and (3) technological and competitive neutrality, resulting in lower prices and greater innovation in telecommunications services deemed critical to society – including utility ratepayers.

There is no workably competitive or well-functioning market for electric distributors' monopoly utility pole assets that can substitute for regulatory intervention.

Proper application of the essential facilities doctrine holds that utility distribution poles are an essential facility for wireline attachments. Distribution poles are not an essential facility for wireless attachments because wireless carriers have numerous siting alternatives.

From a public interest perspective, at a time when there are enormous upward pressures on electricity costs, it is inappropriate for electricity customers to subsidize other entities by allowing them to pay below market rates for access to electricity industry assets.

2. What are the key characteristics of utility pole networks?

The unique attributes of utility poles that make shared use necessary, efficient, and desirable (*i.e.*, essential) for the provision of telecommunications services, applies to all manner of needed carrier attachments. No other attachment sites possess the same attributes of poles, *i.e.*, ubiquity, even spacing, relatively uniform height, access to power and provision of contiguous/continuous corridors.

Evolving small-cell wireless technologies (such as DAS technology), like the facilities used to provide wireless telecommunications and television services, require, from a technical and economic perspective, a network of lower, uniformly spaced support structures, *i.e.*, utility poles.

The important attributes of utility distribution poles from the perspective of wireless networks are also available on other accessible structures.

3. Are there any close substitutes to pole attachments?

The mere existence of (or even the number of alternatives) is not relevant if they do not constrain the monopoly pole owner's market power over poles. Wireline telecommunications and cable television services may also be deployed without access to poles – but access to poles is nonetheless mandated. Were this standard applied consistently, telecommunications carriers or cable television providers too could have been denied mandated access to poles in Ontario or elsewhere.

The demand for, and supply of, wireless attachment sites have grown dramatically over the last decade. Existing mobile carriers currently attach more than 7,000 wireless antennas at more than 1,300 unique locations throughout Toronto - none of which are THESL utility distribution poles. There is no evidence that this market for siting wireless equipment requires regulatory intervention.

4. What are the relevant market definitions to inform appropriate regulatory treatment?

Poles are a vital *input* to the provision of telecommunications services (*i.e.* the final service or *output*). Definitions of both input and output markets come into play in evaluating electric distributors' market power over poles. Following accepted principles, Lemay/Kravtin define the relevant output market applicable to mobile broadband services as the convergent telecommunications market where all manner of wireline and wireless services compete. We define the relevant input market as the market for pole attachments. Alternatives to poles have to be sufficiently close substitutes to be included in the relevant input market.

The single most important market for the present proceeding is the market for siting of wireless facilities. The existence of multiple sites and a workable siting market strongly favours reliance and promotion of existing siting markets. Fair, reasonable and efficient attachment prices to utility distribution poles should be determined within these markets. The existence of freely negotiated contracts for non-essential pole attachments in other jurisdictions (and in Toronto) is consistent with a workably competitive siting market.

5. Is there a basis for differentiating between wireline and wireless attachments to utility poles?

For the multitude of reasons set forth in the Lemay/Kravtin comments in this report (as well as in their pre-filed Evidence), there is no sound basis to discriminate between wireline and wireless carriers for purposes of attachment to poles. That wireless companies have entered into agreements to attach their facilities to utility poles does not in any way provide evidence of the existence of a fair, workable, or well functioning market for poles.

Wireline and wireless attachments are fundamentally different. Utility distribution poles are essential facilities for the former but not for the latter. Our regulatory approach treats these in a non-discriminatory fashion: wireline attachments, regardless of ownership, pay regulated attachment rates. Non-wireline attachments pay rates determined in the marketplace. It is essential to emphasize that THESL is not denying CANDAS or any other potential telecom attacher access to its utility distribution poles. It is simply asking that non-essential attachers pay rates determined by market forces.

A. THE KEY CHARACTERISTICS OF POLE NETWORKS

- (1) Where utility distribution poles are the primary support structure, they
- (i) are generally ubiquitous;
 - (ii) are relatively evenly spaced;
 - (iii) are of relatively uniform height;
 - (iv) are accessible for utility purposes;
 - (v) access to power is available; and
 - (vi) provide contiguous/continuous corridors.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
The key defining and unique characteristics of a utility pole network that render poles vital for telecommunications carriers, cable television providers and other public utilities, are true of pole networks anywhere, regardless of whether they are owned by the electric utility, or incumbent telephone company and regardless of the purpose for which such attachers seek a right of attachment. They are not affected by financial ownership arrangements, which can and in fact do shift over time.	While the above characteristics are common features of joint-use poles, it is important to keep in mind that pole networks are essential facilities for wireline attachments, but not generally for other types of attachments. As wireless technologies evolve, they are being designed to function across a wide spectrum of attachment environments, including those with varying heights and access to multiple backhaul options. It is for this reason that wireless carriers have been able to deploy extensive networks (including in Toronto) without access to utility distribution poles. As Mr. Starkey described in his evidence, wireless carriers as of August 2011 had installed 7,000 antennas in more than 1,300 unique location in Toronto. Mr. Starkey and Dr. Yatchew believe this evidence makes clear that the "unique nature of electricity distribution poles" as discussed above, are not "essential" to the placement of wireless attachments. That said, Mr. Starkey and Dr. Yatchew recognize that electricity distribution poles have value for the placement of wireless attachments. The primary disagreement between us and the CANDAS experts is how that value should be managed. We believe the CANDAS position transfers that value to CANDAS shareholders. We prefer allowing markets to establish the true value and to drive any proceeds to THESL ratepayers.

- (2) Poles are ideally suited for the most efficient and least disruptive deployment of the high capacity fiber optic cabling that is an essential component of a DAS system capable of high speed data throughput.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
While the foregoing statement is true of fiber optic cables, it is also true for wireless facilities and in particular, for small-cell outdoor wireless technologies, including DAS. The notion espoused by Starkey/Yatchew that some attachments used to provide telecommunications services are essential attachments, while others are not, is logically flawed. This is most evident in the case of outdoor DAS technology, where the provision of ubiquitous broadband telecommunications services requires both wireline and wireless attachments.	Utility distribution poles are not an essential facility for wireless attachments. Poles are ideally suited for the most efficient and least disruptive deployment of above-ground wireline systems of various kinds, among them electricity distribution wires, telephone lines, cable company lines and fiber optic cable. Such wireline systems are essential to numerous industries. However, their essentiality does not confer mandated access to public pole systems for their non-essential attachments.

- (3) THESL owns the overwhelming majority of utility distribution poles in Toronto.

[AGREEMENT]

- (i) That network of poles generates market power in the supply of poles.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
	A claim that an entity has market power without a definition of the relevant market is not meaningful. For example, OPEC does not have market power per se. It has market power in the oil market, but not in the market for clothes-lines. Similarly, ownership of a network of poles generates market power in the market for wireline attachers (for which poles are essential facilities), but not necessarily in other markets.

- (ii) That network of poles generates market power in the production of some good, *i.e.*, wireline attachments.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
While the foregoing statement is true with respect to wireline attachments, it is also true for wireless attachments, for example, for small-cell outdoor wireless technologies, including DAS. For example, if the pole owner may extract a rental rate for use of the asset that is one or two orders of magnitude, times the full cost-recovery based regulated rate, then, by standard economic measures of market power that would be sufficient evidence of substantial market power. The fact that wireless companies have entered into agreements with the utility to attach their facilities to utility poles does not in any way provide evidence of the existence of a fair, workable, or well functioning market.	In order to justify regulatory intervention on the basis of a market power argument, a finding of market failure would be critical. In considering prices, the relevant reference would be the market price for siting attachments, not a regulated price. Furthermore, it is not uncommon for workably competitive markets (including telecommunications markets) to display substantial price differentials for similar products. Such price differentials do not imply that regulatory intervention is required or even desirable. The existence of freely negotiated contracts for non-essential pole attachments in other jurisdictions (and now in Toronto) is consistent with a workably competitive siting market.

A.1 KEY CHARACTERISTICS OF SITING OPTIONS OTHER THAN POLES

- (4) There are attachable facilities other than electricity distribution poles that are ubiquitous and available in a variety of spacings and heights. Wireless carriers currently and overwhelmingly use structures other than electricity distribution poles to which they attach wireless antenna and supporting equipment in Toronto and elsewhere. Those structures include the sides of buildings, rooftops, street furniture, self-erected structures and others. A list of thousands of wireless sites in Toronto is publicly available.¹

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
There are no other attachable facilities other than utility poles – including electricity distribution poles – that are ubiquitous and evenly spaced and	The need for "ubiquity" in relation to wireless attachments depends in large part on the wireless technology in question. Macrocell technologies

¹ Starkey Evidence, pg. 27.

of relatively uniform height. Neither rooftops nor side walls of buildings, nor towers possess these attributes. Starkey/Yatchew do not deny this; indeed, as pointed out in the Starkey/Yatchew language above, facilities other than poles are of a variety of spacings and heights. Unless alternatives are sufficiently close substitutes in an economic sense in terms of actual or perceived physical and technical attributes, they do not constrain the pole owner's market power over the supply of poles. Furthermore, mounting antennas on building sides or walls is not feasible for the deployment of wireless or hybrid outdoor systems, such as DAS and WiFi. A similar rationale applies to the wireline networks of telcos and cablecos.	(the predominant method of providing wireless coverage), require an antenna every few kilometers depending upon topography and demand. "Ubiquity" in that context is clearly achievable by means other than utility distribution poles (indeed, electricity distribution poles do not provide necessary elevation for most macrocell applications). Further, in modern heterogeneous wireless networks,² a combination of macro and small cell technologies are employed in layers to provide broader coverage and capacity focused on high-demand areas. These newer architectures allow a carrier to use multiple attachment options to deploy and shape their networks. These options allow wireless carrier to consider utility distribution poles as but one alternative among many upon which to place their wireless equipment.
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- (5) There are multiple commercial wireless networks that are deployed without attachment to poles.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
The foregoing is true for both wireline and wireless carriers. The existing policy of mandating access to poles for the provision of telecommunications services does not require satisfaction of an absolute or impossibility standard, <i>i.e.</i>, a showing that commercial deployment is impossible without attachment to utility poles, to be in the public interest. For example, wireline networks are deployed and both telecommunications and television services are provided without the use of poles – but poles are nonetheless mandated for all in a competitively and technologically neutral manner. Moreover, from a practical perspective, while access to poles may not have been required for yesterday's mobile networks, it is required now	Wireline networks are deployed almost exclusively on poles or underground (conduit or direct buried). Wireless attachments clearly have a variety of siting options.

²

See Starkey Evidence, pgs. 33-35.

and in the future to provide ubiquitous mobile broadband services (<i>e.g.</i> , for the placement of antennas). ³	
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- (6) DAS deployments require more antennas per fixed geographic area than macrocell deployments.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
See Lemay/Kravtin comment in A.1 (4).	The value of electricity distribution poles to CANDAS, because it has chosen a rather unique application of DAS across the metro area to provide "blanket coverage," may be higher than it is for other carriers who are pursuing more flexible network architectures. We do not fail to recognize this "private interest" value on the part of CANDAS relative to accessing THESL's electricity distribution poles. Where we disagree with CANDAS, is whether this <u>private</u> interest value is sufficient to warrant regulatory intervention on the part of the Board, to amend the distribution licences of every electricity distributor in Ontario.

- (7) Structures to which wireless carriers in Toronto currently attach their wireless equipment vary in height.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
See comment in Lemay/Kravtin comment in A (2), A.1 (4) and A.1 (5).	

³ See the advantages of small-cell technologies including outdoor DAS for all mobile carriers as described in the July 26, 2011 Evidence of Johanne Lemay on pp. 20-21, which require utility poles to be efficiently deployed in a given area.

- (8) Fiber optic cabling, access to power and the proper placement height for wireless antennas is available on structures in Toronto other than utility distribution poles.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
See Lemay/Kravtin comment to A(1)(4) and A(1)(5).	This statement is factual. COGECO (CANDAS' business partner) lights more than 500 buildings in Toronto with fiber and has more than 500 kilometers of fiber spread throughout Toronto. Likewise, Bell's policy is to light any building requiring more than 300 telephone lines. ⁴ Access to power is self-evident in the context of buildings and other structures (i.e., signage, etc.). Finally, wireless carriers today are using buildings and self-erected structure to attach multiple wireless technologies, both macrocell and others. Indeed, the proliferation of small cell technologies is accelerating, in part, because they are more flexible with regard to where they can be placed effectively. While the CANDAS experts may believe electricity distribution poles are superior for the CANDAS application with regard to these characteristics, we do not understand why this statement cannot be agreed to with that caveat.

B. THE SHARED USE OF UTILITY POLES (AND OF OTHER INFRASTRUCTURE) BY TELECOMMUNICATIONS ATTACHERS

- (1) Electric and telephone utilities came to own pole networks by virtue of their historical incumbency, as a result of public policies to establish and promote the widespread availability of electric and phone services to the population at large, including grants of ownership rights or easements to public rights of way corridors.

[AGREEMENT]

⁴

Starkey Evidence, pg. 47.

- (2) From a public interest point of view the sharing of existing pole networks of incumbent electricity and telephone utilities is desirable, economically efficient and strongly encouraged by regulators.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
The desirability of shared use of utility pole networks for telecommunications purposes holds true regardless of the particular type or types of facilities attached by the joint users. This is consistent with principles of non-discrimination and technological and competitive neutrality that apply to public good facilities such as utility pole networks. Applying these relevant principles, there is no distinction to be made between wireline and wireless carriers, subject only to their compliance with objective safety and engineering standards.	Sharing of pole networks has been encouraged by regulators for the placement of wireline facilities by electricity, telephone and cable companies.

- (3) It is not practically or economically feasible, nor in the public interest, for a new entrant to install a duplicate pole network analogous to the existing utility network of poles. Therefore, the sharing of pole networks has been strongly encouraged by regulators.

[AGREEMENT]

- (4) The alternatives available to telecommunications attachers to accessing existing utility pole networks, such as building their own stand alone networks or going underground are decidedly inferior vis-à-vis the former.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See reasons set out in A (1), A (2), and A (3)(i) .	Attachment of wireline facilities occurs on poles or through underground conduits. However, in the overwhelming majority of cases, telecommunications companies place their non-wireline attachments, such as antenna, on structures other than utility distribution poles.

- (5) Wireless companies have entered into commercial agreements to attach wireless facilities to utility distribution poles, and other types of poles, without a regulator mandating access or setting a price.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
The fact that wireless companies have entered into agreements with the utility to attach their facilities to utility poles does not in any way provide evidence of the existence of a fair, workable, or well functioning market for poles. In addition, it is not “self-evident” that the 1300 sites on which the antennas referred to in the Starkey/Yatchew comment are technically suitable or economically efficient for the deployment of the new small-cell technologies (that include outdoor DAS) in Toronto.	The statement above is broader than electricity distribution poles. As provided in Mr. Starkey's evidence, agreements have been reached between wireless carriers and utilities (including THESL), but also between wireless carriers and municipalities, as well as building owners and tower management companies. It seems self-evident that where multiple carriers have been able to place 7,000 antennas to date, without the intervention of the Board, a workable market exists.

C. EVOLUTION OF THE TELECOMMUNICATIONS INDUSTRY (TECHNOLOGIES AND MARKETS)

- (1) The telecommunications marketplace is dynamic, i.e. characterized by significant and fast paced changes in underlying technological and market conditions.

[AGREEMENT]

- (2) The telecommunications marketplace has become increasingly competitive over the past couple of decades with increasing competition among service providers offering an increasing array of products.

[AGREEMENT]

- (3) The telecommunications marketplace has become increasingly convergent over the past couple of decades with telecommunications and cable television companies increasingly competing for the same customers in the telephone, video distribution, broadband data and wireless marketplaces. In some areas, electricity distribution companies or their affiliates increasingly compete for the same customers in the telephone, video distribution, broadband data and wireless marketplaces.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
Mobile wireless carriers compete in the same relevant output market (<i>i.e.</i>, the convergent telecommunications market) with incumbent wireline carriers (who also happen to be the largest mobile wireless players in the country). This has been repeatedly recognised by the federal telecommunications regulator, the Canadian Radio-television and Telecommunications commission.⁵ Regulation remains “necessary” where an outcome approximating a competitive market outcome is not “possible”.	Convergence in telecommunications markets does not imply that one or another telecommunications company should be accorded a below market price where a market exists. A fair, balanced and efficient policy would allow markets to determine prices wherever possible, and the regulator to determine prices where necessary.

- (4) In an increasingly convergent marketplace, markets that were traditionally thought of as “separate” markets will no longer function as separate or independent markets.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See Lemay/Kravtin comment in C(3).	While certain segments of telecommunications markets are becoming interrelated, the distinct products continue to exist with their own price structures determined in separate markets.

⁵ See for example, *Navigating Convergence*, Second Report (2011). Executive Summary: “Telecommunications and broadcasting are rapidly converging into a single world of communications that offers innovative services to consumers, delivers these services in new ways and disrupts current business models. Consumers expect to access the services or content they want at anytime, anywhere, using whichever device they choose.” See also Section 2.1.1 on Broadband Networks, which states: “Similarly, successive improvements in wireless data transfer speeds have made truly mobile internet access available almost everywhere. In the future, access to the internet through wireless networks will rival wired access for the delivery of all but the most bandwidth-intensive applications.”

- (5) Wireless carriers provide similar services as other wireline telecom carriers. In many cases, particularly in the case of incumbents, the same companies provide wireline and wireless services.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See Lemay/Kravtin comment in C (3) and C (4). An increasing proportion of consumers find mobile/wireless and wireline services substitutable. They are similar services. This is demonstrated by data from Statistic Canada showing that more Canadians are disconnecting their fixed phone line in favour of mobile phone service alone.⁶	Only minor disagreement exists with respect to this statement. Some consumers certainly use wireless rather than wireline services and find them to be acceptably similar (i.e., they are "substitutes"), others prefer to use both, depending upon the scenario (i.e., they are "complements"). In still other situations, one or the other simply is not acceptable. e.g., I cannot use my wireline while in my car, and I cannot, today, effectively use my wireless service to access extremely high-bandwidth. We believe this description is more accurate than simply to say the services are "similar." We do agree that it is often the case that the same companies offer both wireline and wireless services in the same geographic market.

- (6) There is a convergence in service offerings and intermodal competition as well as substitutability between wireline and wireless/mobile services.

[AGREEMENT]

⁶ <http://www.statcan.gc.ca/daily-quotidien/110405/dq110405a-eng.htm>: "In 2010, 13% of households reported they used a cell phone exclusively, up from 8% in 2008. This was particularly the case for young households. In 2010, 50% of households in the 18-to-34 age bracket were using only cell phones, up from 34% two years earlier. Among all other households, 8% used a cell phone exclusively, up from 5%."

- (7) The evolution of regulatory theory and practice has moved towards promoting competition where possible and regulation where necessary. This approach has been widely applied in telecommunications industries.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
Regulation remains as “necessary” today as ever before, where an outcome approximating a competitive market outcome (<i>i.e.</i>, lower prices, innovative service offerings, efficient use of societal or public good resources) is not “possible,” such as exists in the market for poles. In theory and in practice, pro-competition policies as applied in the telecommunications industry and other historically regulated industries have always considered the market power of the incumbent monopoly provider, and the extent to which that provider can exert control over unfettered market outcomes to the detriment of the public interest.	

- (8) As wireless radio and antenna technologies evolve, they are increasingly more flexible as to the structures to which they can be attached and/or where they can be placed.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
Wireless technologies are evolving to provide mobile broadband services, and small-cell technologies are a key to achieving this goal. These small-cell technologies, including outdoor DAS, emit at much lower power outputs and have much shorter transmission range than conventional macro cells. Thus, they require support structures that have the attributes of pole networks as highlighted in A. (1). We cannot corroborate the fact that small-cell technologies are being deployed today in Toronto for mobile services on any scale without access to utility poles. Where they are deployed on any scale, such as in Montreal , utility poles are the key support structure.	It is true that small cell technologies have lower power output and shorter transmission ranges. It is also true that small cell antennas and radios are generally smaller in size, and more flexible in the ways in which they can be elevated/attached to reach wireless customers. Utility distribution poles are but one option to which these antennas can be attached as evidenced by the fact that they are being deployed today in growing numbers without access to THESL’s electricity distribution poles.

- (9) Heterogeneous wireless networks use more than one technology to provide coverage in a given geographic area.

[AGREEMENT]

- (10) Heterogeneous wireless networks rely upon a combination of macro and small cell technologies to address the needs of customers across a diverse topography.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
While the foregoing statement is true, it does not diminish the fact that a mobile carrier may have reason or be forced to exclusively deploy small-cell technologies such as outdoor DAS in any given area.	

- (11) Wireless carriers have multiple technologies to choose from when determining how best to serve a geographic area, outdoor DAS is one such option.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
See also Lemay/Kravtin comment in C (8) and C (10)]	

- (12) The trend in wireless backhaul is toward Internet Protocol (“IP”)-based backhaul systems that are not necessarily reliant upon fiber optic cables connected to each antenna.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
The foregoing statement makes no sense and is not technically accurate. More importantly, from a policy and economic perspective, just because one can find examples of telecommunications and broadcasting services that are provided without access to poles does not fundamentally alter the unique attributes of pole networks. For every such example, there are examples, such as on the facts of this proceeding, of new technologies, such as small-cell wireless technologies, that do require access to poles. Given the rapid technological change that characterises our era, the public interest standard requires, among other things, a technologically neutral approach to regulation.	There is a strong trend in the industry to utilize IP backhaul options. IP need not rely solely upon fiber optic cable but can be transmitted via copper and coaxial cabling. Small cell technologies are being designed today to utilize these existing transmission mechanisms so as to obviate the need to access fiber where it does not exist, and as a result, increase the number of environments in which small cells can be placed/operated.⁷ Mr. Starkey has clarified that he talking about any IP infrastructure available to commercial enterprises and is not limiting the discussion to DSL [Digital Subscriber Line] or cable modems.

D. MARKET FAILURE

- (1) A central consideration in determining whether regulation is necessary is the identification of a market failure. A monopoly in the provision of a good or service can be the basis for regulatory intervention. The presence of existing or potential providers of a good or service can be the basis for regulatory forbearance.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
As discussed in sections A and A.1 above, poles are monopoly assets and there are no sufficiently close substitutes to constrain the pole owner’s	

⁷

See Starkey Evidence, pg. 37.

market power. As discussed here and in D.(2), Identification of market failure is only one of a number of public interest criteria that provide a basis for regulatory intervention.	
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- (2) A showing of market failure is not necessary under a public interest standard in order to justify regulation of pole access.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
The ultimate policy and economic question in this case is whether to apply the Board's <i>existing</i> regulation of pole attachment services in a non-discriminatory manner to all telecommunications carriers, consistent with a public interest standard, as more fully discussed in E (1) and E (2) below. A public interest standard for regulation takes into account multiple real-world criteria (<i>e.g.</i> , competitive and technological neutrality, efficient use of resources <i>etc.</i>) that are both independent of and highly interrelated to the theoretical concept of market failure.	The policy we propose is non-discriminatory: wireline attachers are charged regulated rates because of the absence of alternatives; wireless attachment rates are negotiated because of the presence of alternatives.

- (3) The public utility's monopoly control over its distribution pole assets applies to all telecommunications carriers.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
Starkey/Yatchew's conclusion that the utility does not have monopoly power is based on an incorrect definition of the relevant input market, in which they incorrectly include alternatives that are not sufficiently close substitutes to poles. See the discussion of relevant input and output markets in G (1) and G (2) below. See also Lemay/Kravtin comments in A.1 (4) and A.1 (5) which discuss the inferiority, from both an economic and technical perspective, of other wireless siting options, as compared to poles.	(i) We would agree to the following statement: "The public utility's monopoly control over its distribution pole assets applies to all telecommunications carriers wishing to attach wireline facilities." (ii) Clearly, the public utility does not have monopoly control over wireless sites: most wireless antenna are not attached to utility distribution poles. (iii) As indicated earlier, the existence of market power or monopoly must be defined in relation to a specific market. Neither THESL nor any pole

	owner has monopoly power over the siting market for wireless attachments. Pole owners do have market power over wireline attachers, be they telecommunications companies, traditional cable companies or electricity companies.
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- (4) A market failure exists where the owner of the asset is able to extract monopoly rent, *i.e.*, a price that is well in excess of the utility's incremental cost of providing access.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
Where a firm can limit access to or charge a supra-competitive price for an input (<i>i.e.</i>, poles) needed to provide a downstream or final service (<i>i.e.</i>, telecommunications), market failure occurs in the form of reduced efficiency and the loss of economic welfare resulting from the less efficient use of resource. See also Lemay/Kravtin comment in D (5) below. Monopoly level rents are typically many order of magnitudes in excess of marginal cost. However, it is important to note that the OEB's regulated per-pole attachment rate for communications attachers is in fact based on a full cost-recovery standard, resulting in a rate that provides equal sharing of common costs and exceeds incremental cost by an order of magnitude. Especially in combination with make-ready charges and other fees paid by the attacher in addition to the regulated rate, the utility is ensured cost recovery well in excess of the incremental cost of attachment. This excess is pure contribution to the utility's core electric distribution service.	The idea that market failure exists and regulatory intervention is required whenever prices depart significantly from incremental costs is incorrect. It is unlikely that any telecommunications company could survive for long if it engaged in marginal cost pricing across its product offerings. In the present context, the relevant benchmark is the price determined in siting markets for wireless attachments.

- (5) A market failure exists where the owner of the pole asset is able to dictate the mode and manner of an entrant's business plan by leveraging its monopolistic control over poles.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
By virtue of their market power over poles, incumbent electric distributors are in a position to delay, control, preclude or otherwise limit the range of deployment and technological options available to competitive telecommunications carriers. For example, in this case, Public Mobile had to completely redefine its network deployment plan to launch mobile voice and data services in Toronto. Public Mobile was forced to deploy using macro cell technologies on towers and rooftop and was prevented from fully executing its network deployment plans.	THESL is not in a position to dictate the business plans of telecommunications companies. THESL is required to attach the wireline facilities of cable and telecom entities and faithfully fulfills this obligation. THESL does not have monopolistic control of the siting market for non-wireline attachments and as such, poles do not constitute essential facilities for non-wireline attachments.

E. PUBLIC INTEREST STANDARD

- (1) Sound regulatory policy should encompass principles of economic efficiency, fairness and competitive neutrality.

[AGREEMENT]

- (2) In applying the public interest standard, sound regulatory policy takes into account:
- (i) Technological neutrality;
 - (ii) Avoidance of impairment of competition;
 - (iii) Avoidance of unjust discrimination and undue preference;
 - (iv) Efficient use of public utility assets;
 - (v) Avoidance of undesirable duplication of pole networks;
 - (vi) Avoidance of cross-subsidy.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
A pole attachment fee in excess of an incremental	The list above is incomplete. The electricity

attacher's incremental costs would constitute a subsidy-free rate. This definition of a subsidy-free rate is well accepted in the economic and regulatory literature. The "commonly understood" definition referred to by Starkey/Yatchew is economically meaningful only where prices determined in the market-place approximate the price that would be achieved in an effectively competitive market, where market forces bid down price closer to cost. As explained in Lemay/Kravtin comment to D (4), the OEB's regulated per-pole attachment rate for communications attachers is in fact based on a full cost-recovery standard, resulting in a rate that provides equal sharing of common costs and exceeds incremental cost by an order of magnitude.	regulator also typically includes other considerations such as; 1. Environmental considerations. 2. Regulatory burden 3. Market solutions v. regulatory intervention 4. Public consultation 5. Impacts on electric utility customers 6. Appropriateness of a subsidy. CANDAS experts provide a narrow definition of subsidy-free rates. A more commonly understood definition of subsidy-free prices are prices which are not substantially below those determined in the market-place.
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- (3) Companies that compete directly in markets for their final services should face even-handed terms for access to shared resources.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
Competitive and technological neutrality require even-handed treatment of wireline and wireless carriers, regardless of who and what technologies they choose to use to deploy. Wireless carriers in particular, use a combination of wireline and wireless facilities, some of which may require attachment to poles in order to compete in the same final services market for convergent telecommunications services. See C (1) to C (6) above.	With the following clarification THESL experts could agree with this statement. An even-handed policy which applies equally to all telecommunications companies consists of two key elements: wireline attachment agreements are covered by regulation because utility distribution poles are essential facilities for such attachments; non-wireline attachment agreements are negotiated because poles are not essential facilities for such attachments.

- (4) A regulatory policy that is competitively neutral is one that does not give one competitor in a given market an undue competitive advantage over another through preferential treatment, unrelated to that competitor's own efficiency in production or entrepreneurial skills.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See Lemay/Kravtin comment in E (3) above.	The policy stated in E.(3) above with Starkey/Yatchew's clarification is competitively neutral.

- (5) Access to poles should be mandated for all manner of telecommunications attachers for purposes of providing telecommunications services.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See Lemay/Kravtin comment in E (3) above.	Mandated access to utility distribution poles is not driven by the industry within which a company participates, but by the essentiality of poles for certain types of attachments. Therefore as indicated in E.(3) above, including clarification, wireline facilities should receive mandated access; non-wireline facilities should not.

F. OTHER PUBLIC POLICY CONSIDERATIONS

- (1) The same characteristics of poles that make access to poles necessary and efficient for the provision of telecommunications services using wireline facilities make it necessary and efficient for the provision of telecommunications services using wireless facilities and hybrid technologies, such as DAS.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
Poles are necessary and efficient for the provision of all manner of telecommunications and cable television services, for the reasons discussed in A	Poles are clearly not the efficient deployment platform for numerous wireless technologies. Companies using wireless technologies, including

(2), A (3) and A.1 (4). The mere existence of alternative support structures for both wireline and wireless telecommunications services in all of its many and varied forms, does not in and of itself constrain the market of the pole owner, owing to the unique attributes of poles identified in A(1). The same holds true for television services, which, depending on the technology chosen by the cable provider, could also be provided without access to poles.	DAS, routinely participate in siting markets to place their equipment. Neutral treatment of telecommunications companies would seem to require that CANDAS also participate in siting markets, of which utility distribution poles are only a portion.
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- (2) Pole networks are essential for the deployment of wireline systems belonging to electricity, cable and telecom companies. Pole networks are not essential for the attachment of wireless facilities belonging to telecom providers. Such facilities are routinely attached to a range of support structures such as buildings, towers and other street furniture.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
See Lemay/Kravtin comment above in F (1).	See prior comments in A.(1), (5), (9), etc.

- (3) Workable or well functioning competitive markets are generally seen to be preferable to regulation. Regulation is a second best alternative to workable or well functioning markets. An important objective of a regulator is the promotion of competition and workable or well functioning markets where possible.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
Lemay / Kravtin would prefer “well-functioning” but can agree to keeping “workable and well-functioning”. See Lemay/Kravtin comment in B (5), C (7), and D (2) above. The foregoing statement is not categorically true without the important qualifier that if the market in question is subject to the exercise of market power, regulation may be required for the public good. A regulatory policy that is competitively and technologically neutral is fully consistent with and the best way to promote competition.	We believe that the terminology "workably competitive" markets is a standard commonly used by regulators.

- (4) Definition of a public good: A public good has two defining characteristics. One party's consumption does not reduce the amount that could be available for someone else. And, no one can be excluded from its consumption. (Classic examples of public goods include national defense, police services and lighthouses.)

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
More relevant to the Board is an understanding of how this concept has been applied to utility poles. The CRTC, the FCC, and the Eleventh Circuit Court of Appeals in the U.S. have held that utility poles possess the essential characteristics of a public good and/or are appropriately classified as public goods pursuant to a public interest standard. ⁸	

- (5) A central public policy objective of the electricity regulator is the protection of the interests of electricity ratepayers as part of the overall application of a public interest standard.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
	We agree with this statement with the following clarification. In this context, it would seem appropriate for the electricity regulator to consider mandated access for non-essential facilities at rates that are far below market, against the pressures on electricity prices. In time, if non-essential attachers were to pay market rates, benefits to electricity ratepayers could be in the many millions of dollars.

⁸ See CRTC Decision 2008-17, FCC EB Docket 04-381, Order 07D-01 (2007), and *Alabama Power*, 311 F.3d at 1370.

- (6) Proliferation of attachments on poles is a valid public policy consideration.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
Because of the nonrivalrous characteristic of utility poles, space on a typical pole can, as a matter of routine practice, accommodate multiple users and uses without any tangible loss to the owner. Concerns regarding “proliferation” are unsubstantiated and unwarranted.	Proliferation of attachments contributes to visual pollution and may be opposed by citizens for this and other reasons.

- (7) In the past, the CRTC has been involved in the regulation of the use of towers and buildings for mounting antennas. The CRTC is in the process of phasing out its tariffs associated with the shared use of towers and cell sites.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
The statement is incorrect as it pertains to phone company poles within the jurisdiction of the CRTC. To the extent that it pertains to towers and cell sites, Ms Lemay and Ms Kravtin have no information that would be corroborative of the veracity of this statement.	It is our understanding that wireless providers seeking to attach antennas to towers and structures belonging to others must negotiate prices and other terms of access.

- (8) THESL experts are not aware of specific CRTC Decisions regarding Distributed Antenna Systems.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
Ms Lemay and Ms Kravtin have no information to corroborate the accuracy of the foregoing statements. Moreover, we are not able to evaluate the basis of Starkey/Yachew’s determination of relevancy.	A search of the CRTC Decisions over the last 5 years did not reveal any specific directions with respect to “distributed antenna systems” that are relevant to the issues in this case.

- (9) CRTC recognizes the convergence of telecommunications markets.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
See comment in C (3) above.	

- (10) CRTC has classified poles as public good facilities.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
See paragraphs 90 to 93 of Decision 2008-17 for the CRTC's determination to mandate access to the ILECs' poles, not because they are "essential" (see CRTC's definition at paragraph 36) <i>per se</i> , but because they can be considered "public good" facilities. ⁹	

- (11) Industry Canada CPC-2-0-03 includes a default public consultation process that must be followed when installing a new radio antenna site.

[AGREEMENT]

- (12) New antenna sites placed on structure less than 15m in height are excluded from the Industry Canada default public consultation process.

[AGREEMENT]

⁹ See Telecom Decision CRTC 2008-17, *Revised regulatory framework for wholesale services and definition of essential service*, online: <http://www.crtc.gc.ca/eng/archive/2008/dt2008-17.htm>.

- (13) THESL utility distribution poles are generally less than 15m in height.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
	Starkey/Yatchew confirm based upon information provided by THESL. ¹⁰

- (14) It is anticipated that none of the CANDAS proposed antenna sites on THESL poles would have been subject to the Industry Canada default public consultation process.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
Telecommunications antenna proposals that are exempted from the default consultation process outlined in CPC-2-0-03 are required to comply with a municipal consultation process adopted by the City of Toronto. See paragraph 3(a) in City of Toronto, Telecommunications Tower and Antenna Protocol, adopted January 27 and 29, 2009.	We appear to agree that CANDAS equipment placed on THESL utility distribution poles would not be subject to the Industry Canada <u>public</u> consultation process. Instead, those wireless sitings are subject to a consultation process with Toronto City Planning Staff per Section 3(a) of the City of Toronto Telecommunication Tower and Antenna Protocol.

G. IDENTIFICATION OF RELEVANT MARKETS

- (1) What are the relevant market definitions to inform appropriate regulatory treatment?

[DISAGREEMENT]

Lemay / Kravtin	Starkey / Yatchew
The market for convergent telecommunications services is the relevant output market.	The market for wireless services is the relevant output market. The market for siting of wireless facilities is the relevant input market.

¹⁰ Affidavit of Mary Byrne (sworn September 1, 2011), para. 6 and Ex. A.

The market for utility pole attachments is the relevant input market. There are no other attachable facilities that possess the unique attributes of poles.	There are thousands of wireless sites operating in Toronto owned by entities other than THESL.
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H. ACCESS TO UTILITY POLES

- (1) Towers and rooftops are decidedly inferior substitutes to poles. As such, they do not serve to constrain the market power of the utility owner.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See A (1) and Lemay/Kravtin comments in A.1 (4) and A.1 (5) for reasons why, from an economic perspective, poles are unique and other wireless siting options are decidedly inferior. Counting up the total number of antennas in Toronto is not a meaningful exercise. Regulators have not imposed an impossibility standard for telecommunications attachers that seek to attach to poles. Were this standard applied consistently, no telecommunications carriers or cable television providers they too could have been denied mandated access to poles in Ontario or elsewhere. The reality is that telecommunications technology is constantly evolving. Small-cell technologies, including outdoor DAS, are just one example of new and innovative deployment options being developed. Small-cells cannot be efficiently deployed from a technical standpoint on support structures other than utility poles. See Lemay/Kravtin comment in C (8). This is not a matter of serving the private interests of a single company's business plan. The deployment of small-cell technologies is becoming a necessity for all carriers. Owing to the unique characteristics of pole, all telecommunications attachers derive "value" from attaching to utility poles, but that does not obviate the public interest basis or need for regulatory intervention.	See prior comments at A(1), A.1.(6) and B(4) related to the number of existing wireless antenna and unique locations and the unique nature of the CANDAS business plan.

- (2) In the telecommunications market today, depending on the specific application or technology, lack of access to poles could be a significant or complete barrier to entry.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
Starkey/Yatchew in effect, argue for discrimination on the basis of evolving telecommunications technology. At a minimum, this forecloses innovation and competition in downstream output markets. It also turns the principle of technological neutrality on its head. See also Lemay/Kravtin comment in C (12) above.	See discussion of H1 above. Multiple wireless carriers operate in Toronto today using multiple types of radio transmission technologies, including DAS. As discussed above, they operate extensively throughout the city and provide competing wireless services without accessing THESL utility distribution poles. Given this data, it is difficult to agree that allowing THESL to negotiate with wireless attachers for terms and conditions related to accessing its distribution poles, without regulatory intervention, erects "significant or complete barrier[s] to entry."

- (3) In this case, THESL was able to leverage its monopoly power to dictate the mode and manner of Public Mobile's launch in the Toronto market.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
See Lemay/Kravtin comment above in D (5).	THESL is not in a position to 'dictate' to Public Mobile, or any other telecommunications carrier, how they develop their business plans. If such business plans require a subsidy through below market attachment rates for non-essential facilities, then it would seem unreasonable for THESL to acquiesce to such rates at the expense of its rate-payers.

- (4) Access to electricity distribution poles is required for the widespread deployment of outdoor DAS to provide blanket coverage.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Disagree
As discussed in Lemay/Kravtin's comment in H (1) above, access to poles will clearly have value to any attaching entity, but that value does not in any way diminish the need to mandate access to poles. To the contrary, it supports the need.	We cannot agree to this statement. As stated previously, we agree that where CANDAS, as part of its business model intends to rely solely on outdoor DAS technologies placed across a broad geographic footprint to provide "blanket coverage," access to electricity distribution poles at regulated rates would have substantial value to CANDAS members and their shareholders. However, we also note that multiple wireless operators and business models that do not hold solely to a single technology are not so heavily reliant upon electricity distribution poles - indeed, they operate today without access to electricity distribution poles at all.

- (5) Public Mobile
- (i) Public Mobile purchased spectrum in the 2008 auction. (It was high frequency, G-Block spectrum.)
 - (ii) Public Mobile has access to power poles in Montreal.
 - (iii) Public Mobile was able to launch its service in Toronto without access to utility distribution poles for the siting of their wireless antennas.
 - (iv) The Public Mobile network was "turned on" in Toronto approximately a month earlier than in Montreal.
 - (v) Public Mobile rate offerings are essentially the same in Montreal and Toronto.

[DISAGREEMENT]

Lemay / Kravtin Disagree	Starkey / Yatchew Agree
Ms Lemay and Ms Kravtin cannot corroborate all of the foregoing. ¹¹	

¹¹ See July 26, 2011 Evidence of Johanne Lemay on pp. 13, 14, 25 and 27.

I. OPERATIONAL AND SAFETY CONSIDERATIONS

- (1) Operational and safety considerations are routinely addressed by utilities and third party wireless attachers in negotiated pole attachment agreements entered into between utilities and third party attachers.

[DISAGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew
Starkey/Yatchew's specifically address allegedly unique safety/operational concerns in their pre-filed Evidence. Moreover, the foregoing statement is not intended to and does not address the technical merits of THESL's contentions that there are unique operational and safety considerations associated with wireless attachments that justify a "no wireless policy." Rather, Ms Lemay and Ms Kravtin are providing their understanding that in practice, operational and safety considerations are routinely and properly addressed through reasonable terms and conditions of attachment agreements, electricity safety codes, and other objective standards.	Pursuant to the Board's procedural order, we understood that the Expert Conference would be limited to public policy and economic issues. As such, THESL's witness on technical matters, Ms. Byrne, did not attend.

- (2) Safety:
- (i) Safety, operational or engineering considerations are routinely addressed in pole attachment agreements between utilities and third party attachers through adherence with electrical safety standards and other objective standards of access.
 - (ii) Utilities are adequately protected:
 - A. Agreements typically provide that any safety violations are remedied at the third party's expense.
 - B. Failure to comply is grounds for penalties and the ultimate removal of third party attachments at the expense of the third party.
- (3) Operational:
- (i) Electric utilities routinely accommodate third party attachments of varying shapes and sizes on their poles.
 - (ii) The only objective standards that limit the placement of attachments on poles are electrical safety standards.

- (iii) Space on poles is not scarce. The make ready process is a normal routine practice of electric utilities by which additional space on poles can be readily attained through rearrangement of wires or change out of the pole to a higher or stronger pole.
- (iv) Where a third party user may require pole modifications or change out of poles to accommodate its use, through the make ready process, that user will pay for the out of pocket costs incurred by the utility in connection with its attachment. The utility maintains full ownership of whatever improvements are made to the pole to accommodate the new attacher.

Lemay / Kravtin Agree	Starkey / Yatchew
	See response to I.(1)

- (4) “Communication space” is a term of art with specific meaning in the industry.

[AGREEMENT]

Lemay / Kravtin Agree	Starkey / Yatchew Agree
The space referred to as “communications space” is a term of art referring generally to space below the power zone and above ground clearances. Its meaning in the industry is strictly in the context of electrical safety standards whose purpose historically has been to ensure the safety of communications workers. As long as safety requirements are met, the space that may be used for communications attachments can and is routinely expanded. Thus, the amount of space on a pole that can be used to accommodate communications attachments is a variable function of the size of the pole and the arrangement of attachments pursuant to required clearances for safety purposes. It is also common industry practice for communications equipment to be located above or below the space designated pursuant to safety standards as “communications space.” Furthermore, the evidence on the record of this	The term "communications space" is known in the industry to define space below the power space. Likewise, it is known to include a finite space of roughly 2 feet within which wireline attachments are generally placed. While it is true that equipment supporting wireline network(s) is sometimes found outside the communications space, that equipment is relatively sparse compared to the number of wireline attachments. Wireless attachments of the type contemplated by CANDAS would provide equipment outside the communications space with respect to every wireless attachment.

matter shows cable companies attach equipment outside of the communication space more frequently (5 times per square kilometre) than DAS providers (4 times per square kilometre). See Tormod Larsen Reply Evidence, Appendix "A", pages 3 and 5.	
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J. CCTA DECISION

Ms Lemay and Ms Kravtin do not agree to have this section in this report. They have not been asked and have not reviewed the entirety of the record of the CCTA proceeding. In addition, that record speaks for itself.

- (1) The Settlement Agreement in the 2004 CCTA proceeding which was accepted by the Board specifically sets aside consideration of wireless attachments.¹²

[DISAGREEMENT] [OBJECTION]

Lemay / Kravtin	Starkey / Yatchew Agree
See above.	

- (2) The word "wireless" appears but twice in the 500 pages of transcripts for the hearing. The term distributed antenna system appears not at all.

[DISAGREEMENT] [OBJECTION]

Lemay / Kravtin	Starkey / Yatchew Agree
See above.	

***** END OF DOCUMENT *****

¹² Canadian Cable Television Association Proceeding, Settlement Agreement, October 19, 2004, page 10.