

Board Staff Interrogatories

**Application by the
Canadian Distributed Antenna Systems
Coalition**

EB-2011-0120

August 9, 2011

1. Please provide the following information on permit applications for wireless attachments to the poles of Ontario electricity distributors for the purpose of operating the distributed antenna systems (“DAS”) network:
 - 1.1. Total number of permit applications that have been made to each Ontario electricity distributor broken down by distributor.
 - 1.2. Number of applications that have been processed by each Ontario electricity distributor.
 - 1.3. Number of attachment permits that have been granted by each Ontario electricity distributor.
 - 1.4. Number of attachment applications that (a) have not been processed; or (b) rejected by each Ontario electricity distributor and reasons given by each distributor for not processing or rejecting the applications.
2. Please provide the following details of attachments currently being used to operate the DAS network in Ontario:
 - 2.1. Name of the Ontario electricity distributor in whose territory the attachment is located;
 - 2.2. The structure to which the device is attached (i.e. electricity pole, street lighting pole, other pole, or structure other than a pole) – please specify;
 - 2.3. If on a pole, the location (i.e. communication space or top of pole); and
 - 2.4. Dimensions and weight of the attachment.
3. According to section 9.1 of the application, the pole access agreement with Toronto Hydro Energy Services Inc. (“THESI”) expired on December 31, 2010 and THESI advised DAScom that it would be required to remove all wireless attachments in accordance with that agreement.
 - 3.1. Please indicate whether the agreement with THESI was renewed.
 - 3.2. Please indicate whether THESI is presently processing any of the wireless attachment applications filed prior to the expiration of the access agreement.
 - 3.3. Please provide the number of wireless attachments currently attached to THESI’s poles based on previously approved attachment permits.
 - 3.4. Please provide the number of attachments that are presently being used to provide wireless service.

- 3.5. Please indicate whether any wireless attachments have been removed as a result of the expiration of the agreement. If yes, please provide full particulars including by whom the attachments were removed.
4. Section 9.2 of the application states that “THESL’s refusal to renew the Light Pole Access Agreement suggests that THESL will also refuse to renew the Distribution Pole Access Agreement when it expires”.
- 4.1. Please indicate whether the pole access agreement with THESL has expired? If yes,
- 4.1.1. on what date did expire?
 - 4.1.2. please indicate whether the agreement with THESL has been renewed;
 - 4.1.3. please indicate whether THESL is presently processing any of the attachment applications filed prior to the expiration of the access agreements; and
 - 4.1.4. Please indicate whether any wireless attachments have been removed as a result of the expiration of the agreement. If yes, please provide full particulars including by whom the attachments were removed.
- 4.2. Please provide the number wireless attachments currently attached to THESL’s poles based on previously approved attachment permits.
- 4.3. Please provide the number of attachments that are presently being used to provide wireless service.
5. Please confirm whether safety and engineering standards and the data required to be submitted in support of attachment applications was provided by THESL at the time the pole attachment applications were filed by CANDAS members.
6. In its August 13, 2010 letter to the Ontario Energy Board, THESL listed some differences between wireline and wireless attachments.
- 6.1. Please indicate whether you agree with the differences pointed out by THESL. If you disagree, please indicate why you disagree and provide information and documentation to support your position.

7. Section 2.7 of the application states that “at least one other large electricity distributor in Ontario appears to be following THESL’s lead by adopting a “no wireless policy” and that “certain other distributors are not prepared to offer pole access agreements for wireless attachments at this time”.
 - 7.1. Please identify the other distributor(s) that have adopted the “no wireless” policy.
 - 7.2. Please identify the distributors that are presently not prepared to offer pole access agreements for wireless attachments.
 - 7.3. Please provide evidence that would demonstrate that those distributors are unwilling to attach wireless equipment to their poles and/or unwilling to offer pole access agreements for wireless attachments.
 - 7.4. If attachment applications have been made to those distributors, please provide information on the status of these applications including:
 - 7.4.1. whether any permits have been granted;
 - 7.4.2. whether any reasons have been given for not offering pole access agreements and if so, please state those reasons.
8. Please provide copies of the pole access agreements with THESL and THESI. If this is considered confidential, a request for confidential treatment of these documents may be made and will be subject to the Board’s Practice Directions on Confidentiality.
9. Section 5.8 of the application states that there are two DAS networks currently operating in Montreal. Please provide details of these networks including:
 - 9.1. Total number of attachments to the electricity distribution poles.
 - 9.2. Total number of attachments to the streetlight poles.
 - 9.3. Specific location of the attachments on the poles (i.e. within the communications space or other parts of the pole).
 - 9.4. Are other structures currently being used or contemplated to be used to accommodate the wireless equipment necessary for operating the DAS networks as an alternative to utility poles? If yes, please provide the following information:
 - 9.4.1. list the alternative structures;

- 9.4.2. what arrangements are in place or need to be in place for the use;
and
- 9.4.3. reasons for the use.
- 9.5. A description of the process for applying and gaining access to electricity distribution poles.
- 9.6. Information on whether any concerns relating to safety hazards or operational issues were raised by the utilities in relation to attachments of wireless equipment to their poles.
- 9.7. A detailed description of the pole access agreements entered into for the establishment of the DAS network including whether they were reviewed or approved by a regulatory agency and/or contain standard terms and conditions.
- 9.8. The rate that applies to DAS network attachments per pole or per attachment and the rate that applies to wireline attachments broken down by distributor.
10. Please provide examples of pole access agreements entered into by members of CANDAS where the terms and conditions governing attachments have been determined by a regulatory agency.
11. Please provide examples of jurisdictions where the DAS networks has been deployed and expanded with minimal incremental construction.
12. Section 3.12 of the Application states:
The Board's reasons for accepting the settlement of Issue 2 are articulated in the following passages: On this issue, the parties are in agreement. In the Settlement Agreement of October 19, 2004, all parties agreed that if the Board does set access conditions, these conditions should apply to access...by all Canadian Carriers as defined in the Telecommunications Act and cable companies.

12.1. Please provide the names of “the Canadian carriers as defined in the Telecommunications Act and cable companies” that were employing pole mounted wireless antennas with similar weight and shape to DAS antennas prior to issuance of the CCTA order by the Board on March 7 2005.

13. Sections 3.12 of the Application states: “The LDCs also confirmed that all users of the communications space should pay the same charge. Sections 3.14 of the Application states: “The Board ultimately decided the pole charge issue in a way that did not distinguish among various types of attachments.”

13.1. Is it your understanding that all communications attachments at the time of the CCTA Order were wireline attachments?

13.2. Is it your understanding that all wireline attachments fit within the two-foot communications allowance on a typical pole?

13.3. To your knowledge what is the relationship between the space requirement of a typical wireline attachment and the DAS antenna equipment on a pole?

13.4. To your knowledge, what is the relationship between the weight of a typical wireline attachment and the weight of the DAS antenna equipment?

14. Section 5.3 of the Application states:

Optimal and effective design and deployment of DAS networks require that node antennas be attached at elevations that correspond roughly to the heights of utility and street light poles (9-14 meters), as opposed to higher elevations of towers and the roof tops of multi-story buildings (greater than 15 meters)..

14.1. Considering the optimal installation height of 9 m to 14 m, it appears exterior building walls in the downtown core may also offer the optimal height for installation of DAS antennas. Have you conducted any studies to establish the technical feasibility of installing the antennas on exterior building walls at appropriate heights? If so, please provide the results. If not, please explain why not.

15. Section 5.5 of the Application states:

Traditional cellular telephone network technology relies on “**Macro Cell Sites**,” comprising large antenna arrays mounted on tall communication towers or on building tops. These sites transmit high powered radio signals over large areas. Especially in urban settings, these large, wireless installations: (i) are typically more obtrusive; (ii) often provide incomplete coverage in areas around tall buildings which block radio signals; (iii) are less flexible in areas where capacity requirements may be changing;

15.1. In relation to the large antennas employed on Macro Cell Sites, is it true that a DAS antenna serves relatively smaller area and to cover an equal area, greater number of DAS antennas are required in relation to the number of required Macro Cell Site antennas?

16. On a pole where there are already 2 or 3 existing communications attachments installed and occupy most of the allocated 2' communication space, how will the DAS antenna bracket be installed within the communication attachment space without disturbing the existing attachments? Please provide drawings showing installation of the DAS antenna under such conditions?

17. Even when it is possible to install bracket of DAS antenna within the allocated communication space, based on the dimensions of the antenna provided by the applicant, will the antenna not protrude into the allocated safety clearance space between power lines and communication lines? If the answer to this question is yes, please comment as to whether installation of DAS antennas will or may impair the operational efficiency and present incremental safety hazards to workers.

18. If a DAS antenna is attached outside of the allocated communication space, i.e. at the pole top, as shown in the photographs included in the application, how will the contractor's staff, who may not be authorized to carry out live line work on THESL distribution system, be able to install the antenna without obtaining a power shut down?

19. Please provide typical installation drawings, showing the number and diameter of holes required to be drilled in a pole for mounting of DAS antennas and accessories on a pole.
20. Section 10.11 of the Application states:
As is set out below, there is no question that THESL's refusal to permit wireless attachments discriminates unjustly. Access is granted to cable attachers. Access is granted to wireline attachers, but not to wireless attachers. And, access is granted to some wireless attachers, but not DAScom.
- 20.1. Please identify the wireless attachers (other than DAScom) that THESL has granted access?
- 20.2. Please provide a description of such attachments as to size, weight and location on THESL's pole and a comparison with DAScom's attachments in each of these respects.
21. During the term of the contracts with THESL and THESI, was DAScom ever requested by THESL or THESI to remove an attachment for any reason? If so,
- 21.1. Please describe the procedure of notification and timing that was followed?
- 21.2. How many times did this occur?
- 21.3. Were reasons given, and if so, please provide those reasons.
- 21.4. Were the attachments removed? If so, by what party and within what timeline.
22. Is CANDAS, Dascom or ExteNet aware whether any Canadian jurisdiction or any Canadian electric utility permits attachment of wireless devices to the tops of poles? If so, please provide the names of such jurisdictions and/or utilities, and copies of any studies or documentation supporting the decision of the jurisdictional authorities or utilities to do so.
23. George Vinyard's Evidence, page 4:
ExteNet Systems' experience in arranging for attachment of DAS network facilities in the United States is extensive. Directly or through its operating subsidiaries, ExteNet Systems has entered into

approximately 80 attachment agreements with over 35 utilities, most of which involve attachment to power poles. Many of these arrangements in respect of attachments of antennas and related equipment, including radio units. Negotiations with over 20 other utilities are currently ongoing in connection with over 30 new attachment agreements.

23.1. For each of these agreements or utilities as appropriate, please indicate:

- 23.1.1. whether the utility permits pole-top attachments, with medium voltage power lines attached at a level below the DAS antenna;
- 23.1.2. the rates in effect for wireless attachments and wireline attachments;
- 23.1.3. the average charge paid by ExteNet Systems to the utility for “make ready” work on a pole;
- 23.1.4. in case of pole top installations installed above the medium voltage power lines, please indicate whether the antennas are installed by the power company’s staff or by contractors; and
- 23.1.5. if installed by contractors, under what circumstances a power outage is required during installation of the antennas?

24. George Vinyard’s Evidence, page 4

In the course of its dealings with various electricity distribution companies in the United States, ExteNet Systems has encountered and had occasion to deal with many legal and practical issues related to both wireline and wireless attachments to distribution poles. Moreover, ExteNet Systems has actively participated in FCC and state utility commission proceedings related to pole attachment terms and conditions.

24.1. Given ExteNet Systems' knowledge of existence of legal and practical issues and of the fact that electric utilities are subject to regulation of their activities with regard to pole attachments, please outline the steps taken by ExteNet, DAScom, or CANDAS as applicable, to satisfy itself as to the policy and practice of the Board, and/or of Ontario electricity distributors, with regard to telecommunications attachments, in advance of committing to the capital cost of its installations in Toronto?

25. Section 6.3(a) of the Application: Agreement with City of Toronto

- 25.1. Please describe the process by which DAScom provided the technical specifications and physical descriptions of its proposed pole attachments to the City of Toronto in negotiating the Access Agreement.
- 25.2. Please provide a copy of any technical specifications and physical descriptions that were provided to the City of Toronto.
- 25.3. To CANDAS' knowledge, did the City of Toronto consult with THESL or THESI as to the technical issues associated with the proposed attachments before entering into the agreement?