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August 17, 2011

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
PO Box 2319, 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli:

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

We represent CANDAS in connection with its application to the Board regarding access to the power poles of licensed electricity distributors for the purpose of attaching wireless telecommunications equipment ("**Application**").

In accordance with Procedural Order No. 1, CANDAS is filing the Responses to Interrogatories of Electricity Distributors Association.

CANDAS will file two paper copies of the above-noted evidence as soon as possible.

Yours very truly,

(signed) H.T. Newland

HTN/ko

cc: Mr. George Vinyard
ExteNet Systems, Inc.
Mr. Mark Rodger
Borden Ladner Gervais
All Intervenors

EB-2011-0120

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 the **Canadian Distributed Antenna Systems Coalition** for certain orders under the *Ontario Energy Board Act*, 1998.

RESPONSES TO INTERROGATORIES OF

ELECTRICITY DISTRIBUTORS ASSOCIATION

(on the evidence of the Applicant, CANDAS)

August 17, 2011

Response to EDA Interrogatories for CANDAS (OEB File:EB-2011-0120) Written Evidence from George Vinyard

Questions:

1. According to Q.5 (page 4 of the evidence), ExteNet Systems has extensive experience in arranging for Distributed Antenna Systems (DAS) network facilities in the US. The statement indicates that they have signed over 80 contracts with more than 35 utilities and there are 20 more that are being finalized right now. For these existing agreements in the U.S. and other agreements that have been made in Canada, please provide the following information:

   (a) the attachment policies/regulatory orders for each pole owner

   (b) the detailed attachment agreement that has been signed with the pole owner including prices, how the prices were determined and if that includes fees for installation and/or ongoing maintenance

   (c) Arrangements on terms and conditions surrounding limitations of liability, indemnification, insurance and security for certain obligations

   (d) Who is contracted to carry out the installation/maintenance/repair work for each of these agreements?

   (e) For each of these 35 utilities, please provide detailed information if there are other installations elsewhere in the utilities' jurisdiction other than the hydro poles? What are the costs associated with installations and maintenance in those locations?

Responses:

1. (a) See Application, Tab 22 (FCC Order). See responses to Staff 10 and THESL 25(a). Beyond this, it would be unduly onerous to produce the "attachment policies/regulatory orders for each pole owner", nor would such information be relevant having regard to the nature of the Application.

   (b) See responses to THESL 18(a) and 18(b) and Staff 8. The rates vary by jurisdiction. CANDAS' position is that the details are not relevant to this

Application; moreover production thereof would be unduly onerous having regard to its probative value, if any.

(c)-(d) Beyond the information provided above and in response to the other IRs, these details are not relevant to this Application; moreover production thereof would be unduly onerous having regard to its probative value, if any.

Question:

2. As per Q5 (page 4 of the evidence), please provide details of ExteNet's communication with other utilities in Ontario pertaining to installation of wireless equipment on their distribution poles.

Response:

See response to Staff 7.

Question:

3. ExteNet acknowledges as per Q6 (page 6 of the evidence) and accepts that telecommunication attachments to electricity distribution poles should be accommodated and carried out in a manner that is i) fully compliant with all applicable safety regulation. To that end, please provide evidence of your communication and discussion with Ontario's Electrical Safety Authority (ESA) and other safety agencies to ensure that wireless equipment that will be placed on the hydro poles are up to the established safety standards.

Response:

With respect to the generic issue of how compliance with applicable safety-related legislation, codes, standards and guidelines can be assured, CANDAS' position is that Board-approved terms and conditions governing pole attachments should include provisions requiring attachers to comply with all applicable safety-related legislation, standards, codes and guidelines. CANDAS is of the view that DAScom's permit applications submitted to THESL demonstrated such compliance. ExteNet had no occasion to seek specific interpretations of established safety standards and did not communicate directly with the ESA regarding wireless equipment.

See also the Written Evidence of Tormod Larsen, Exhibit D and, in particular, sheet 2 of 4 (General Notes 6, 8, 26, 29, 33) and sheet 4 of 4 ("Certificate of Approval" certifying compliance with O. Reg. 22/04, s. 4 (safety requirements)).

Question:

4. For Q10 (page 9 of the evidence), please provide detailed information on how the rates should be reassessed to ensure that utilities are able to capture all of their costs. Has ExteNet had experience in other jurisdictions where rates were set based on utility costs that are attributable to pole attachments? If so, please provide detailed evidence of such rate setting mechanism.

Response:

Contrary to the implication in the question, neither CANDAS nor any other party to the proceeding has applied, in this proceeding, to "reassess" the pole access rate.

Question:

5. As per Q11 (page 9 of evidence), please provide examples of "reciprocal arrangements" ExteNet has had with utilities in the past during finalization of agreements.

Response:

CANDAS' evidence is that indemnification provisions in attachment agreements should be reciprocal and not one-sided. One-sided and onerous indemnification provisions unilaterally imposed on attachers by utilities, are barriers to access. See also response to CCC 11.

Question:

6. According to Q12 of evidence (page 11 of evidence), ExteNet has seldom, if ever, encountered a situation in the United States in which it could not attach its facilities by reason of insufficient capacity. In light of this statement, please provide examples of when ExteNet did encounter the problem of insufficient capacity or something close to that and how it was resolved. Please provide detailed information on what action(s) ExteNet intends to take if there is NO capacity on the electricity poles of a certain utility in Ontario.

Response:

This question implies what CANDAS believes to be a false premise, i.e. that for some electric utilities every single pole is occupied to capacity. CANDAS believes that can only be the case if capacity has been arbitrarily limited on the basis of factors other than legitimate safety, engineering and operational concerns. For purposes of attaching wireless equipment, if a particular pole is occupied to capacity (or to the point where the cost of "make ready" rearrangements would be prohibitive), there are typically nearby poles with available capacity. See also response to THESL 45. Neither ExteNet (in Canada) nor ExteNet Systems (in the US) has encountered a situation where pole access was not available because of insufficient capacity, affecting all of the electricity poles of a given utility.

As to the question about what action ExteNet intends to take if there is no capacity "on the electricity poles of a certain utility in Ontario," CANDAS has the following comments:

- DAScom, and not ExteNet, is the CANDAS member that enters into attachment agreements with utilities in Ontario;
- DAScom and ExteNet did not encounter problems of insufficient pole capacity with respect to DAS node attachments in connection with the design and development of the Toronto DAS Network;
- on a go-forward basis, DAScom and the other members of CANDAS would expect that pole space will be allocated, by utilities, to requesting attachers in accordance with a Board-approved methodology; and
- with respect to a methodology for allocating pole space, see response to THESL 45.

Question:

7. Please provide details of the basis, if any, on which CANDAS has determined that the existing charge for attachments in the communication spaces of electricity poles of $22.35 should apply?

Response:

CANDAS has not made any such "determination". The onus to vary the existing rate is on the regulated entity.

Question:

8. As per Q12 of the evidence (page 11 and 12 of the evidence), please provide detailed information as to what is defined as "reasonably specific explanations of the grounds for the denial" as defined by ExteNet. Does ExteNet agree that the agreements can be terminated for convenience, e.g., if the LDC plans to take a portion of their overhead poles underground?

Response:

As to the question asking for detailed information re: “grounds for denial”, see Application, Tab 22, page 342 of 1378, para. 75-76 and page 343 of 1378, para. 77. As to the question regarding termination for “convenience”, ExteNet does not agree that any attachment permits or licences should be subject to termination for “convenience”. Neither does ExteNet agree that a plan to underground a portion of the distribution system would be an example of termination for “convenience” in the sense of termination at the party’s discretion without justification. ExteNet does agree that attachment permits or licences (not entire agreements) for specific poles or pole lines should be subject to termination for legitimate operational reasons, including but not limited to pole line removal, assuming there are appropriate safeguards against abuse and provisions ensuring sufficient notice to enable the attacher to procure replacement infrastructure.

Question:

9. In Q13 (page 12 of the evidence), it is stated that ExteNet would realize the loss of its entire investment in the Toronto DAS network if the Board denied its application. Please provide detailed financial statements or other financial analysis/projections that indicate the level of financial impact that ExteNet will face if the Board does not grant relief to CANDAS.

Response:

As stated in the Application, the investment in the Toronto DAS Network, to date, is in the order of $10 million. This investment will be in jeopardy if the Board does not enforce the CCTA Order or otherwise mandate access to power poles. However, CANDAS is not seeking to recover its losses in this proceeding and, accordingly, further details are not relevant.

Written evidence from Tormod Larsen

Question:

10. For Q4, Section (iv), (page 5 of the evidence), please define "consistent and efficient approach" to power availability.

Response:

The cited statement alludes to the desirability of having reasonably uniform and convenient access to electric power connections for all of the DAS nodes in a given network, as contrasted with the typical variability and difficulty of accessing the required electric power source in a broad range of privately owned and operated structures.

Questions:

11. For Q4 (page 5 and 6 of the evidence), there is a detailed description of typical configuration of a DAS node site. For the installation and/or maintenance of such a site, please provide the following information in detail, including providing examples from work that has been done in other jurisdictions in North America:

    (a) What is the typical time that is required to attach this equipment?

    (b) What kind of facilities and equipment (e.g. bucket truck) is required to attach?

    (c) Who will be carrying out these installations? What formal training and/or certifications will such personnel be required to have at a minimum?

    (d) What does the fibre-optic installation consist of? What work (including make ready work) is required to install it? What forces do the work?

Responses:

(a) The amount of time to attach equipment varies by pole type. A typical installation of DAS node equipment on an electric distribution pole can generally be performed in 12 to 18 hours of work. When the DAS antenna is attached to the top of the pole, the process could involve another 4-6 hours of work. The work is generally performed in two (or in the case of pole top antenna installations three) separate stages, so that the amount of time spent at the site of the pole is not continuous for the entire installation process. Thus, for DAS nodes involving installation of the antenna in the communications space, the first stage of the process would involve attachment and interconnection of the antenna and the other DAS equipment, and the second stage would involve the work related to preparing for connection of electric service. For installations involving pole-top antenna placement, the first stage would involve affixing the antenna and would be followed by the installation of the other DAS equipment and the electric service work as described above.

(b) A typical DAS node installation on an electric distribution pole requires a minimum of a three person crew consisting of a bucket truck operator, a safety/flag person and communications installation technician. Certified (master/ journeyman) electricians and an apprentice are required to complete the electric service preparation work. Where the installation includes a pole-top antenna placement, that stage of the installation would typically be performed by the

electric utility or its approved contractor using the equipment and qualified personnel they would normally use for work in or above the power zone.

See also THESL 20(a); Staff 23.1.4 and 23.1.5

(c) Please see response in THESL 20(a) and Board Staff 23.1.4.

(d) Aerial fibre optic cable installations on electric distribution poles typically require physical inspection and engineering evaluation of the affected pole line in advance to determine whether make-ready engineering and construction is required. Make ready construction may involve rearrangement of existing attachments to the poles. This work is typically performed by the owner of the existing attachments (with their employees or their qualified contractors doing the work). In cases where the necessary make ready work involves relocation of any electric distribution facilities (e.g., relocating primary or secondary power or neutral cables on the pole) this work is only performed by the utility using their own employees or their approved contractors. All of the make ready construction work performed by the electric utility or the existing attachers is paid for by the carrier requesting the new attachment, with the occasional negotiated exception being situations in which make ready work includes items that would be necessary to bring the poles up to standard even without the addition of the new attachment (e.g., cost sharing for pole replacements that would otherwise be required in any event). Once the pole line has been made ready for an additional attachment, qualified communications line crews contracted by the attaching party install anchors and rollers on each pole often with a pull string running through each roller along a series of poles to a transportation vehicle loaded with fibre optic cable spools. The installed pull string is attached to a spool of galvanized steel messenger cable and when properly connected, the messenger cable is pulled through the rollers, tensioned and attached to the anchors placed on the poles. Once the messenger cable is properly installed, the fibre optic cable is pulled through the rollers in the same fashion as the messenger cable. Once the fibre cable is placed, the fibre optic cable is lashed to the messenger cable using a lashing machine that runs or is pulled along the messenger cable, wrapping lashing wire around both the messenger cable and the fibre optic cable. Installation of splice cases and other hardware is installed on the messenger cable and fibre cables are spliced together using a fusion splicing trailer or if modular cables (Corning FlexNep (TM)) is used, the connections are snapped together and weather proofed. Upon completion of the installation, the rollers are removed and the installation is complete.

Question:

12. What are the technical and safety terms and conditions that CANDAS are proposing? Please provide details.

Response:

See response to THESL 21(a).

Question:

13. Please provide details of options available to ExteNet if an area requiring wireless equipment installations does not have any electricity poles or there is no space available on the electricity poles.

Response:

As noted earlier, CANDAS and ExteNet do not agree that in areas where electricity poles exist it is realistic to assume that none of them would have available space suitable for wireless equipment attachments. Where no electricity poles exist, e.g. in areas where all electric distribution has been undergrounded, the most viable option, if any, is typically street light poles or similar infrastructure such as traffic lights standards. In some instances the placement of new, standalone DAS node poles on the public rights of way may be a viable option.

Question:

14. In addition to attaching wireless equipment to distribution poles, is CANDAS contemplating using streetlight poles in the LDCs' territories as well? If so, what assurance do they have, if any, of access to streetlight poles? Can they economically build their DAS networks in cities where access to streetlight poles is denied? Please provide cost of access information pertaining to streetlight poles if available. If not available, please provide details on how that should be determined.

Response:

CANDAS has no specific plans. However, DAS providers typically contemplate using street light poles where those are available on reasonable terms and conditions. As a general rule there is no assurance of access to street light poles unless and until such access is granted by the proper municipal authority or other owner. The economic and technical viability of DAS deployments in cities where access to both utility poles and street light poles is denied depends entirely on the specific circumstances and on whether new dedicated pole-placement is permitted. To the extent this question elicits information relevant to rates, such information is not relevant, having regard to the nature of this Application.

Question:

15. For Q7 and Q8 (page 11 and 12 of the evidence), please provide the best available information as to when DAS installations will be requested in cities where applications still have not been made. Provide some indication of the correlation between urban size/density and when DAS can reasonably be anticipated to require installation on utility poles.

Response:

CANDAS will be in a better position to answer this question once the Board has issued its decision in this proceeding.

Written evidence from Bob Boron

Question:

16. For Q3 (page 3 of the evidence), please provide the basis on which Public Mobile is stating that they disagree with THESL' s statement that the board-approved attachment rate is too low. How has Public Mobile determined that the current charges for attachments in the communication spaces should apply for wireless equipment too? Please provide any analysis that has been done.

Response:

See response to THESL 42.

Question:

17. For Q3, please advise if the Toronto DAS network will be made available to other wireless providers? How will the price of access be determined for these external users? Is there an expectation that additional networks or additional wireless equipment will be required in the future?

Response:

The Toronto DAS Network was designed and intended to have capacity so that it could be used by other wireless service providers. If it or any portion thereof can ultimately be built, the price of access for additional users would be negotiated. Additional wireless equipment would be required for the use of the DAS Network by more than one user.

Question:

18. For Q4 (page 3 of the evidence), please provide how it was determined that there is NO other alternative but to attach DAS equipment to hydro poles. Written evidence from other parties states otherwise.

Response:

The question takes Mr. Boron's evidence out of context. Refer to Q 4 in its entirety.

Question:

19. As per Q6 (page 4 of the evidence), please provide details of the technical and safety terms and conditions that Public Mobile is proposing when it comes to installation of wireless equipment on hydro poles.

Response:

This question is based on the erroneous assumption that Public Mobile will be installing its equipment on power poles. See also response to THESL 21(a).

Question:

20. Please provide detailed information on what access do incumbent wireless providers have to which Public Mobile does not have access. Does Public Mobile compete or are they planning to compete with Rogers and Bell in the provision of internet services which those companies currently provide over cable or telephone wire lines?

Response:

See response to THESL 47(b).

Question:

21. For Q7 (page 4 of the evidence), if there is more than one potential user for a pole space, what process should be set up to ration that space? Please provide details, if available, of examples of rationing and how it was done and examples of auctioning of pole rights. What option does Public Mobile have if there is NO space on the distribution poles of a utility? What obligation do ExteNet, Public Mobile or other carriers have to share their allotted pole space and/or share their facilities with other competitors as they become available?

Response:

See response to EDA 6 and THESL 45.

Question:

22. Does CANDAS or ExteNet or Public Mobile have any information on what a market-based price would be. To your knowledge, in jurisdictions where pole access is available, are prices set on a cost recovery basis? If so, how are the prices determined? If they are determined on some other basis, please describe.

Response:

The information requested is not relevant to the issues raised in the Application. No party has requested that the Board review and vary the regulated pole access rate or consider the methodology that underpins this rate.

Consultation Paper from Lemay-Yates Associates

Questions:

23. Section 2.3 of LYA's consultation paper states that Industry Canada requires Canada's wireless carriers to share their antenna towers and sites. The current policy governing mandated tower and site sharing can be found in *Policy Framework for the Auction for Spectrum Licenses for Advanced Wireless Services* and other Spectrum in the 2 GHz range, which was published in November 2007. The section states that "*Industry Canada has concluded that it is in accordance with the orderly development and efficient operation of radiocommunication in Canada to mandate antenna tower and site sharing and to prohibit exclusive site arrangements for all licensees including broadcasting certificate holders.*" In light of the above statement please provide the following information:

    (a) Details of discussions/communication that ExteNet, Public Mobile and CANDAS has had with existing wireless carriers with antenna towers and sites to share their space and details of why no agreement was reached as such, given the mandate placed by Industry Canada.

    (b) If CANDAS applicants have not approached these wireless carriers to share their antenna towers and sites, please provide the rationale which determined why they were not or should not be approached.

    (c) On what basis has LYA determined that antenna sharing rules also apply to electricity poles in terms of sharing space with wireless equipment companies?

Responses:

    (a) Ms. Lemay is not privy to any discussions that CANDAS or its members would have had with existing wireless carriers with regards to access to their antenna towers and sites. In any event, the question is not relevant to the issues raised in the Application, since existing wireless carriers' antenna towers and sites are not suitable to support a DAS network deployment.

    (b) The question is not relevant to the issues raised in the Application, since the existing wireless carriers' antenna towers and sites are not suitable to support a DAS network deployment.

(c) Ms. Lemay does not understand the question as she has made no such determination. Ms. Lemay has expressed the view that denial of access to utility poles, including hydro poles, lampposts and streetlights, would have a significant impact on the development of a competitive wireless market based on current technological trends (LYA Report, page 19) and that there should be no distinctions made as to how wireline and wireless carriers are treated when it comes to access to support structures and attachments to utility poles (LYA Report, page 33), including hydro poles, lampposts and streetlights.

Question:

24. As per Section 4 of LYA's report, please provide the details of the agreement between Videotron and Hydro Quebec.

Response:

Section 4 of the Lemay-Yates Associates Inc.'s Report to CANDAS dated 26 July 2011 does not refer to any agreement between Videotron and Hydro Quebec. Ms. Lemay cannot confirm that such an agreement exists.