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September 14, 2011

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
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Helen T Newland
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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 interrogatories in respect of the Intervenor evidence of Dr. Adonis Yatchew, filed by Toronto Hydro-Electric System Limited.

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

Yours very truly,

(signed) H.T. Newland

HTN/ko

cc: Mr. George Vinyard
 All Intervenors

ONTARIO ENERGY BOARD

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*.

Interrogatories of CANDAS

to

Toronto Hydro-Electric System Limited

(Dr. Adonis Yatchew)

September 14, 2011

Interrogatory 1

Reference: Yatchew, page 2, lines 19 to 24

Preamble: Dr. Yatchew states:

“In 2004 I coauthored testimony specifically on the pricing of attachment space for joint use poles. This testimony was filed before the Ontario Energy Board. A similar analysis was filed before the New Brunswick Board of Commissioners of Public Utilities in 2005. In 2008, I coauthored a study on the subject for the Canadian Electricity Association. Since that time, I have also participated in processes and negotiations relating to attachments to utility poles.”

Questions:

- (a) List and describe Dr. Yatchew’s experience with the telecommunications industry in general and the wireless telecommunications sector in particular. Include deployment experience, white papers, standardization work or other relevant engagements in wireless network design or deployments.

Interrogatory 2

Reference: Yatchew, page 4, lines 7-8; page 11, lines 8 -10; and page 13, lines 21-22

Preamble: Dr. Yatchew states:

page 4, lines 7-8

“Wireless systems should not be subsumed under the Decision as they are fundamentally different from wireline attachments.”

page 11, lines 8 -10

“As I will explain further below, and as is documented elsewhere in the evidence, wireless attachments are fundamentally different from wireline attachments such as those supporting traditional cable televisions lines and fiber optic cable.”

page 13, lines 21-22

“Furthermore, as outlined above and supported extensively in other evidence before this Board, wireless systems are fundamentally different from traditional wireline systems.”

Questions:

- (a) “Systems” and “attachments” appear to be used synonymously in the first above-noted citation.
 - (i) Define “wireless systems” as referred to in the above-noted citations and elsewhere in Dr. Yatchew’s affidavit.
 - (ii) Define “wireline systems” as referred to in the third above-noted citation and elsewhere in Dr. Yatchew’s affidavit.
 - (iii) Define “wireless attachments” as referred to in the second above-noted citation and elsewhere in Dr. Yatchew’s affidavit.
 - (iv) Define “wireline attachments” as referred to in the first above-noted citation and elsewhere in Dr. Yatchew’s affidavit.
- (b) List each of the assumptions of fact underlying Dr. Yatchew’s statement at page 11, lines 8-10, that “wireless attachments are fundamentally different from wireline attachments.”
 - (i) For each such fact,

- A. Confirm whether Dr. Yatchew had personal knowledge of such fact prior to accepting THESL's retainer in this matter.
 - B. If Dr. Yatchew had no personal knowledge, identify the basis of Dr. Yatchew's belief in the truth of such fact.
- (c) List each of the assumptions of fact underlying Dr. Yatchew's statement at page 13, lines 21-22, that "wireless systems are fundamentally different from traditional wireline systems."
- (i) For each such fact,
 - A. Confirm whether Dr. Yatchew had personal knowledge of such fact prior to accepting THESL's retainer in this matter.
 - B. If Dr. Yatchew had no such personal knowledge, identify the basis of Dr. Yatchew's belief in the truth of such fact.

Interrogatory 3

Reference: Yatchew, page 4, lines 10-12

Preamble: Dr. Yatchew states:

“Unlike wireline companies which require continuous connected corridors through which their cables must pass, and which must attach to myriad poles at short intervals, wireless providers can transmit and receive their signals from a relatively few number of facilities, placed on a range of possible support structures.”

- (a) Provide detailed technical details within Dr. Yatchew’s personal knowledge to support the assertions in the above-noted citation. Include specific figures and parameters as they relate to the “short intervals” to attach to “myriad poles” faced by wireline companies and in contrast, the “relatively few number of facilities” to which wireless providers may allegedly attach.
- (b) Does Dr. Yatchew agree that in a DAS deployment, the nodes require a continuous, connected corridor through which the cable portion must pass, and which, in addition, must attach to myriad poles at short intervals? If no, why not?

Interrogatory 4

Reference: Yatchew, page 4, lines 20-25

Preamble: Dr. Yatchew states:

“It is difficult to reconcile CANDAS evidence that DAS systems are extremely flexible, adaptable and can be deployed in a broad spectrum of indoor and outdoor environments, with their assertion that there is no alternative but to attach to utility poles. It would seem that, particularly in urban environments, multiple structures are available for supporting wireless facilities, which do not have the same safety issues associated with power pole attachments.

Questions:

- (a) Elaborate on the extent to which the conclusion that “multiple structures are available for supporting wireless facilities” is applicable to a context of:
 - (i) Increasing demand on all mobile wireless networks;
 - (ii) A new entrant wireless carrier with relatively fewer spectrum frequency assets than established incumbent carriers.

Interrogatory 5

Reference: Yatchew, page 5, lines 9-10

Preamble: Dr. Yatchew states:

“Markets for wireless services have evolved rapidly and successfully without mandatory pole access for wireless facilities.”

Questions:

- (a) Dr. Yatchew refers to the rapid and successful evolution of markets for wireless services.
 - (i) Explain the relevant timeframe of the evolution of markets for wireless services.
 - (ii) Explain the basis for Dr. Yatchew’s characterisation of this evolution as “successful.” Provide full details and supporting references to published studies, reports or analyses of the Canadian wireless marketplace, if any.

Interrogatory 6

Reference: Yatchew, page 5, lines 10-12

Preamble: Dr. Yatchew states:

“There is an extensive siting market and a well established process for the placement of wireless antenna facilities.”

Questions:

- (a) Describe Dr. Yatchew’s understanding of the elements of the “well established process for the placement of wireless antenna facilities” referred to in the above-noted citation. Include any and all third-party approvals or consultation requirements, as applicable, in Dr. Yatchew’s opinion. Include the typical timeframes associated with each element of the well established process.
- (b) To the extent that different elements, third-party approvals or consultations and timeframes are associated with the acquisition or lease of different types of wireless antenna sites, clearly reflect these differences in Dr. Yatchew’s answer.

Interrogatory 7

Reference: Yatchew, page 5, lines 15-17

Preamble: Dr. Yatchew states:

“Nor is it in the public interest to transfer a resource from the public domain to a small group of private entities without consideration of alternative uses for that resource and of its market value.”

Questions:

- (a) In the context of the issues in this proceeding, what is the “resource” and how it would be “transferred” as a result of the outcome of this proceeding?
- (b) In Dr. Yatchew’s opinion, would it be in the public interest to:
 - (i) Transfer the resource to public entities but not to a “small group of private entities”;
 - (ii) Transfer the resource to any third party as long as it is governed solely by market forces;
 - (iii) All of the above?

Interrogatory 8

Reference: Yatchew, page 7, lines 7-9

Preamble: Dr. Yatchew states:

“...wireless attachments do not typically fit within the 2 feet (or less) of communications space to which that Order applies. ...unlike wireline facilities, utility poles are not essential facilities for wireless services.”

Questions:

- (a) Regarding the assertion that wireless attachments do not typically fit within the 2 feet (or less) of communications space,
- (i) Define “communications space” as referred to in the above-noted citation.
 - (ii) Assuming that applicable ESA and safety clearances are maintained, confirm whether in Dr. Yatchew’s experience, there are instances where equipment is placed in the unused space below the communications space. Describe these instances as well as Dr. Yatchew’s prior experience with matters concerning the placement of equipment of utility poles.
 - (iii) Based on Dr. Yatchew’s experience and knowledge, confirm that wireline carriers’ attachments do not always fit within the so-called communications space.
 - (iv) Based on Dr. Yatchew’s experience and knowledge, confirm that other municipally-owned or third-party equipment and facilities on poles do not always fit within the so-called communications space.
 - (v) Describe Dr. Yatchew’s prior experience with matters pertaining to the placement of equipment on utility poles.
 - (vi) Describe in detail Dr. Yatchew’s personal knowledge regarding the standard equipment or attachment process for wireline carriers’ equipment. For clarity, “wireline carrier” includes both telecommunications carriers and cable (CATV) carriers:
 - I. Include all standards, calculations performed, and typical installations that apply to CATV and associated installations including cable facilities and related equipment (e.g. Cable TV boxes or batter units).
 - (1) Specify their size, weight, pole attachment method and location on the pole.
 - II. Include all standards, calculations performed and typical installations that apply to copper and fibre deployments.

- III. Include all standards, calculations performed, and typical installations that apply to power supplies or similar functions.
 - (1) Specify their size, weight, attachment method and location on the pole.
 - IV. Include all standards, calculations performed and typical installations that apply to any other types of attachments.
 - (1) Specify their size, weight and attachment method and location on the pole.
- (vii) Describe Dr. Yatchew's personal understanding of the type of attachments required for a DAS deployments and how they differ from typical wireline carriers' deployments (including associated equipment attached to poles).
- I. Specifically, compare how a fibre attachment for DAS differs from a wireline carrier's attachment.
 - II. Specifically, compare how a "node" attachment for DAS differs from various wireline carriers' equipment attachments.

Interrogatory 9

Reference: Yatchew, page 8

Preamble: Dr. Yatchew is asked:

“What are some of the key trends in the communications industry which can impact demand for space?”

In response to the question posed to Dr. Yatchew, at page 8 of his Affidavit, Dr. Yatchew discusses

- Increases in demand for high-speed Internet (broadband) telecommunications services in general
- Recent entry of new entrant wireless service providers as a result of Industry Canada’s 2008 spectrum auction
- Appearance of so-called “smart-phones” in the mobile wireless communications market
- Convergence of voice, video and data services via Internet Protocol (IP) technology.

Questions:

- (a) Describe Dr. Yatchew’s understanding of the degree of competitiveness of the residential high-speed Internet access market in Canada in terms of the degree of penetration, the quality of such services, and revenue market share. Cite all relevant sources.
- (b) Describe Dr. Yatchew’s understanding of the degree of competitiveness of the mobile wireless communications market in Canada in terms of the degree of penetration, the quality of such services, and revenue market share. Cite all relevant sources.

Interrogatory 10

Reference: Yatchew, page 9, lines 20-22

Preamble: Dr. Yatchew states:

“Current and future demand for pole space by distributing utilities is also growing as the industry rolls out smart metering; develops smart grid systems; and installs automatic switching devices.”

Questions:

- (a) Regarding smart metering:
- (i) Describe smart metering in the context of distributing utilities and explain the role of wireless transmission technologies in the deployment of smart metering.
 - (ii) Describe the elements and configuration of the elements of a smart metering network. Provide a network schematic diagram if possible.
 - (iii) Explain whether use of pole space is necessary or desirable for the implementation of a smart metering network and specifically identify the portions of a smart metering network for which pole space would be used.
 - (iv) To the extent that the use of pole space is necessary or desirable for the deployment of certain portions of a smart metering network, describe the advantages of use of pole space as opposed to macrocell sites, the sides of buildings or rooftops.
 - (v) Could smart metering be efficiently and practically deployed using only macrocell sites, the sides of buildings or rooftops? Fully describe the process and timeframes for such deployment, relative to deployment using pole space.
- (b) Regarding a smart grid system:
- (i) Describe smart grid systems in the context of distributing utilities and explain the role of wireless transmission technologies in the deployment of smart grid systems.
 - (ii) Describe the elements and configuration of a smart grid system. Provide a network schematic diagram if possible.
 - (iii) Explain whether use of pole space is necessary or desirable for the implementation of a smart grid system and specifically identify the portions of a smart grid system for which pole space would be used.
 - (iv) To the extent that the use of pole space is necessary or desirable for the deployment of certain portions of a smart grid system, describe the advantages of use of pole space as opposed to macrocell sites, the sides of buildings or rooftops.

- (v) Could a smart grid system be efficiently and practically deployed using only macrocell sites, the sides of buildings or rooftops? Fully describe the process and timeframes for such deployment, relative to deployment using pole space.
- (c) Regarding the installation of automatic switching devices:
- (i) Describe the installation of automatic switching devices in the context of distributing utilities and explain the role of wireless transmission technologies in the deployment of automatic switching devices.
 - (ii) Describe the elements and configuration of an automatic switching device network in relation to the distributing utility's distribution network. Provide a network schematic diagram if possible.
 - (iii) Explain whether use of pole space is necessary or desirable for the installation of automatic switching devices and specifically identify why pole space would be used for same.
 - (iv) To the extent that the use of pole space is necessary or desirable for the deployment of automatic switching devices, describe the advantages of use of pole space as opposed to macrocell sites, the sides of buildings or rooftops.
 - (v) Could automatic switching devices be efficiently and practically deployed using only macrocell sites, the sides of buildings or rooftops? Fully describe the process and timeframes for such deployment, relative to deployment using pole space.

Interrogatory 11

Reference: Yatchew, page 10, lines 15-17

Preamble: Dr. Yatchew states:

“The need to regulate cable attachments rested on the argument that attachers could be denied access, or lacking cost-effective alternatives, could be charged excessively high rates by pole or conduit owners.”

Questions:

- (a) To which regulatory authorities in particular is Dr. Yatchew referring in the above-noted citation.
- (b) Describe other grounds, if any, upon which access to “populations of poles or networks of underground conduits” has been mandated.

Interrogatory 12

Reference: Yatchew, page 7, lines 8-9; page 11, lines 8-14

Preamble: Dr. Yatchew states:

Page 7, lines 8-9

“Second, unlike wireline facilities, utility poles are not essential facilities for wireless services.”

Page 11, lines 8-14

“As I will explain further below, and as is documented elsewhere in the evidence, wireless attachments are fundamentally different from wireline attachments such as those supporting traditional cable television lines and fibre optic cable. Wireless attachments can be placed in a variety of locations, so long as they are sufficiently elevated. Indeed, the cellular phone industry has grown and prospered with very little in the way of wireless attachments to power or other utility poles. Power poles are therefore not an essential facility for the wireless industry.”

Questions:

- (a) Dr Yatchew states on page 11 of his Affidavit that there are fundamental differences between wireline and wireless facilities and one key point is that they have common shared support structures. As described in Mr. Starkey’s evidence, Industry Canada has mandated the use of shared and collocated wireless facilities. Is it Dr. Yatchew’s opinion that support structures for wireless carriers cannot be shared?
- (b) Dr. Yatchew states that “utility poles are not essential facilities for wireless services” and that “power poles are ... not an essential facility for the wireless industry.”
 - (i) Confirm that fundamentally speaking, the basis of the foregoing opinion is that “[w]ireless attachments can be placed in a variety of locations, so long as they are sufficiently elevated.”
 - (ii) Identify other grounds, if any, upon which Dr. Yatchew bases this opinion.

Interrogatory 13

Reference: Yatchew, page 12, lines 3-6

Preamble: Dr. Yatchew states:

“Rather than relying upon rights of way along corridors throughout a community, wireless systems require facilities to be installed at a relatively small number of locations. Moreover, the antenna systems themselves can generally be placed on private or on publicly owned structures. As a result, an active siting market has developed.”

Questions:

- (a) Define “a relatively small number of locations” in terms of the number of sites per square kilometre.
- (b) In the case of the smaller cell sites referred to by LCC International, Inc.¹, what is Dr. Yatchew’s understanding of the number of sites required according to standard industry practices per square kilometre to meet current and future needs of a mobile wireless network operator?
 - (i) Would Dr. Yatchew’s answer differ depending on whether the mobile wireless network operator is one of the three established incumbent mobile wireless carriers in Canada or one of the new entrant mobile wireless carriers? If so, distinguish between these two cases in the answer provided by Dr. Yatchew.

¹ LCC International, Inc., Outdoor Distributed Antenna Systems and their Role in the Wireless Industry, filed 1 September 2011 by the Canadian Electricity Association in OEB File No. EB-2011-0120.

Interrogatory 14

Reference: Yatchew, page 12, lines 14-20

Preamble: Dr. Yatchew states:

“Distributed antenna systems have multiple wireless components. However, they are not wireline systems in the traditional sense of the term. Indeed, the requisite wireline facilities may not even be owned by the DAS owner.”

Questions:

- (a) What are the material differences between fibre optic cable attachments used for wireless services and fibre optic cable attachments used for wireline services?
- (b) Explain why electricity distribution networks and cable distribution network have a greater need to be placed in continuous corridors relative to a smaller cell wireless deployment, as referred to in the LCC International, Inc. report.
- (c) Is it Dr. Yatchew’s opinion that electricity and cable do not service discrete points?

Interrogatory 15

Reference: Yatchew, page 13, line 17

Preamble: Dr. Yatchew states:

“Markets have responded effectively to meet the needs of various wireless market participants.”

Questions:

- (a) Define the “markets” referred to in the above-noted citation.
- (b) Define the needs referred to in the above-noted citation.
- (c) Provide evidence that “markets” in Canada have responded.

Interrogatory 16

Reference: Yatchew, page 4, lines 25-27; page 16, lines 9-14

Preamble: Dr. Yatchew states:

Page 4, lines 25-27

"It is my understanding that the Canadian Electricity Association is putting extensive technical evidence before this Board which documents alternative support options."

Page 16, lines 9-14

"A detailed study prepared by LCC International Inc., and filed before this Board by the Canadian Electricity Association provides examples of sites which are currently in use. These include private and public buildings of various kinds, street furniture, towers, flagpoles and structures that are specifically erected for the purpose of accommodating wireless communications. The affidavit of Mr. M. Starkey, filed before this Board on behalf of THESL also contains evidence of alternatives for attachment."

Questions:

- (a) Dr. Yatchew states that he relies upon the LCC International, Inc. report and the Affidavit of Mr. Starkey filed with the Board in this matter for his conclusion that the "wireless facilities that are required by DAS networks have numerous alternative siting options."
 - (i) Identify the different siting options.
 - (ii) Clarify whether it is Dr. Yatchew's understanding that each siting option is interchangeable with any other siting option, regardless of the cell size of the wireless deployment being contemplated.
- (b) Clarify whether Dr. Yatchew has any independent understanding of the alternative siting options for wireless carriers other than the information contained in the LCC International, Inc. report and the Affidavit of Mr. Starkey.
 - (i) If so, identify the basis of any understanding that Dr. Yatchew has, independent of the information contained in the LCC International, Inc. report and the Affidavit of Mr. Starkey.

Interrogatory 17

Reference: Yatchew, Page 16, line 16, and generally

Preamble: At page 16, line 16 of his Affidavit, Dr. Yatchew states:

“3. Utility poles are a limited and valuable resource.”

At page 17, lines 12 to 14 of his Affidavit, Dr. Yatchew states:

“In addition to their critical importance as essential facilities, support structures such as poles constitute a valuable resource which, if appropriate conditions are met, may provide support services to nonessential facilities.”

At page 30, line 2 of his Affidavit, Dr. Yatchew states:

Although THESL has a virtual monopoly on poles, it does not have a monopoly on support structures for wireless facilities ...

Questions:

- (a) Dr Yatchew states that “[u]tility poles are a limited and valuable resource”, and that “THESL has a virtual monopoly on poles.” Confirm that denial of access to such a limited and valuable resource would be an exercise of market power. If Dr. Yatchew does not agree, fully explain the basis of Dr. Yatchew’s contrary conclusion.

Interrogatory 18

Reference: Yatchew, pages 18-19, lines 28-29

Preamble: Dr. Yatchew states:

“The existence of a very active, extensive and competitive siting market is well supported by the presence of companies whose primary business is the siting of wireless and other communications facilities.”

Questions:

- (a) Provide evidence of conditions in the Canadian “competitive siting market” if any.
- (b) Mr. Starkey states at page 23, lines 15 to 18 of his Affidavit filed with the Board in this matter that he relies on Dr. Yatchew’s “determination” that for purposes of the CANDAS application, “the relevant product market is the market for siting wireless attachments.” Confirm that Dr. Yatchew concurs with Mr. Starkey’s interpretation of Dr. Yatchew’s evidence.
- (c) Assuming that Dr. Yatchew concurs with Mr. Starkey’s interpretation, provide specific excerpts and references from Dr. Yatchew’s Affidavit that relate to the determination that “the relevant product market is the market for siting wireless attachments” and in particular, analysis used by Dr. Yatchew to conclude that the relevant product market is the market for siting wireless attachments.
- (d) In the above-noted citation, Dr. Yatchew refers to a single siting market. However, in other portions of his Affidavit, he refers to the existence of siting markets in the plural. Advise whether in Dr. Yatchew’s view, there is a single siting market, or whether there are multiple siting markets.
 - (i) If in Dr. Yatchew’s view, there are multiple siting markets, confirm whether these multiple siting markets are delineated
 - A. by geography and/or
 - B. by relevant product.
 - (ii) If in Dr. Yatchew’s view, there a multiple siting markets defined by relevant product, identify the different relevant products.

Interrogatory 19

Reference: Yatchew, page 22, lines 17-20

Preamble: Dr. Yatchew states:

“Q. Is there a risk of regulatory failure if the OEB were to intervene? A. Yes, there are significant risks.”

Questions:

- (a) Are there benefits that would be forgone if the OEB were not to intervene?
- (b) Does Dr. Yatchew believe that the telecommunications market in Toronto will be more or less competitive if wireless carriers' access to THESL poles is granted?

Interrogatory 20

Reference: Yatchew, page 29, lines 23-24

Preamble: Dr. Yatchew states:

“Wireline attachers are fundamentally different from wireless entities as the latter do not require continuous corridors for placement of their wireless facilities.”

Questions:

- (a) Confirm whether Dr. Yatchew relies on the LCC International, Inc. report for his understanding that wireless entities “do not require continuous corridors for placement of their wireless facilities.”
 - (i) If so, provide the specific excerpts from the LCC International, Inc. report upon which Dr. Yatchew relies in this regard.
- (b) Advise whether Dr. Yatchew relies on any other sources for his understanding that wireless entities “do not require continuous corridors for placement of their wireless facilities.”
 - (i) If so, provide the all relevant references and specific excerpts upon which Dr. Yatchew relies.
- (c) Advise whether Dr. Yatchew has any personal knowledge or experience relevant to the requirements or desirable features of the deployment of wireless facilities.
 - (i) If so, answer the following questions. If Dr. Yatchew has no prior knowledge or experience concerning the placement of equipment on utility poles, Dr. Yatchew need not answer the following questions:
 - A. Explain how the unique contiguous nature of a pole route’s design differs from the required contiguous nature of a Greenfield wireless network design to provide for basic mobile service coverage in a given area.
 - B. Can fibre cables be strung overhead, from building rooftop, to towers, to billboards or alternate structures on anything other than utility poles?
 - C. Indicate whether Dr. Yatchew would agree that the installation of wireless equipment on utility poles within 10 feet of the fibre optic cable is more commercially viable than attempting to attach to buildings, rooftops, towers or other structures, which will inevitably require fibre lateral engineering and construction from the pole line to the building?
 - D. Would the cost, increased administrative burdens, disruptive nature of underground construction, road and sidewalk restoration and other factors and

costs in building a fibre network to reach an alternative location represent a barrier to entry to wireless carriers if wireless carriers were refused access to utility poles?

- E. If not, provide an economic and operational assessment that demonstrates specifically what barriers to entry exist for wireline carriers that do not exist for wireless carriers having to use alternate structures.

Interrogatory 21

Reference: Yatchew, page 30, lines 27-29

Preamble: Dr. Yatchew states:

“Q. CANDAS evidence refers extensively to DAS deployments in other jurisdictions. In particular, it suggests that in some cities, DAS networks have been deployed largely on poles.”

Questions:

- (a) Does Dr. Yatchew agree that as a matter of fact, DAS networks have largely been deployed on poles? If not, why?

Interrogatory 22

Reference: Yatchew, page 31, lines 1-2

Preamble: Dr. Yatchew states:

“I would not conclude that DAS deployment on poles has occurred of necessity, that is, that distributed antenna systems have no alternative but to attach to utility poles.”

Questions:

- (a) What is the basis for this view?
- (b) Would Dr. Yatchew’s conclusion change if physical alternatives exist, but such alternatives were not viable from a regulatory, economic or technological perspective?

Interrogatory 23

Reference: Yatchew, page 31, lines 3-7

Preamble: Dr. Yatchew states:

“The decision has been made in some jurisdictions to facilitate attachment of wireless facilities to utility poles (electricity and telephone) at favourable prices. As a consequence, in those areas DAS developers have not needed to adapt their designs so that they can be attached elsewhere, nor would there have been a need to seek other locations.”

Questions:

- (a) Identify the relevant jurisdictions and decisions.

Interrogatory 24

Reference: Yatchew, page 31, lines 10-14

Preamble: Dr. Yatchew states

“The decision to strongly encourage or mandate attachment, in some instances, has been made by a telecom regulatory authority that has favoured its own industry, sometimes at the expense of other industries and ratepayers. While this decision may be reasonable for a telecom regulator, an energy regulator might be more likely to consider the needs of the energy industry and its ratepayers, and arrive at a different conclusion.”

Questions:

- (a) Is the Federal Communications Commission decision of April 2011 an example that supports his assertion? Explain why.