INTERROGATORIES
to
CANADIAN NUCLEAR SAFETY COMMISSION

pursuant to

OEB PROCEDURAL ORDER # 5
(Made February 25th, 2008)

SUBMISSION DATE: **March 10th, 2008**

SUBMITTED BY: **FALLIS GROUP OF INTERVENER LANDOWNERS, ('Fallis Group')**

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INTERROGATORIES TO:

CANADIAN SAFETY NUCLEAR COMMISSION,

PREAMBLE:

The Ontario Energy Board,('OEB'),has established May 1st, 2008 for the commencement of Hearings on an Application brought by Hydro One Networks Inc., ("HONI') to the OEB under Sec. 92 of the *OEB Act* for leave to construct at 180 KM - 500 KV Transmission Line from the Bruce Nuclear Generating Stations on Lake Huron to Milton in the Region of Halton , located just west of Toronto,

The stated purpose of the Application is to allow for the transmission of power to be generated from two new nuclear reactor Units within Bruce 'A' Generating Station, namely Units 1 & 2, which are scheduled for completion of refurbishment within the next three years.

There are presently five (5) transmission lines that are constructed from the Bruce GSS complex, namely three (3) 230 KV Lines running to Owen Sound, Orangeville and Detweiler, respectively, and two (2) 500 KV Lines running to Milton and Longwood respectively.

The Bruce Complex at its peak in the early 1980's had nine reactor units, namely:

Douglas Point Reactor	- 1 unit	-	generating	200 MW
Bruce 'A' -	- 4 units	-	generating	3,000 MW (plus)
Bruce 'B' -	- 4 units	-	generating	3,000 MW (plus)
Total stated generation				6,200 MW (plus)

Board Staff of the OEB have determined from the filings of HONI and the OPA made with the application that Units 3 & 4 of Bruce 'A' and Units 1, 2, 3, & 4 of Bruce 'B' have a present generation capacity of 5,060 MW, and that with refurbishment of Units 1 & 2 of Bruce 'A' there will be an additional 1,500 MW of generation capacity to be restored to the overall generation form the Bruce Generating Stations bringing the total overall generation capacity to 6,560 MW.

As the electrical highway in existence at present is the same as was in existence in the 1980's and allowed for the transmission of upwards of 6,760 MW of generated capacity from the Bruce, many of the Interveners and the OEB Board Staff have asked HONI to explain how such transmission capacity has been allowed to degrade itself to a point where the 5 Transmission Line system only now allows for a maximum transmission capacity of 5060 MW.

HONI has been asked by the Board Staff of the OEB and by interveners to provide historic evidence as to the generation capacities and performances of each of the 9 reactor units as were constructed and used at the Bruce.

The Independent Electrical System Operator, ("IESO") made a Study Report in August of 2005 wherein it analyzed the refurbishment of Units 1 & 2 at Bruce 'A' and determined therein that there was not any need to create any new transmission lines to accommodate the return to service of Units 1 & 2 at Bruce 'A' when the refurbishment was completed within the next three years.

THESE INTERVENERS have made written requests to HONI for technical in formation in late September 2007 in much the same form as the following Interrogatories, which were to be answered by HONI on October 15th and 16th, 2007 at the offices of the OEB at a technical conference. HONI refused to answer any of those questions, taking the position that they were "*Interrogatories*" and had to asked in that next stage of the proceedings.

The OEB made an Order on February 25th that HONI had to indicate within three business days after submission as to what Interrogatory questions it would answer and what it would not answer, and it had to provide full answer within 2 weeks of such request.

HONI advised These Interveners that they were unable to answer any questions that had any requests for information that pre-dated 2002. As these Interveners raised questions about historic generation and transmission information this answer was and is totally unsatisfactory.

THESE INTERVENERS then made follow up requests of Bruce Power with the same written Interrogatories and additional questions hoping to garnish from the existing operator of the Bruce GSS all that same historic information along with other needed information. On M arch 6th, 2008 Bruce Power replied and advised that it refused to provide any such information.

THESE INTERVENERS take the position that Bruce Power is a *'driver'* in this Application as it will be the direct beneficiary of the Application of HONI if approved, and that Bruce Power cannot deny the OEB and the Interveners te very Information that is needed by the OEB to allow it to make a full and fair analysis of the question as to whether or not the new 500 KV line is needed.

Having been advised that the CNSC requires the operators of all nuclear reactor to store and arc hive all information of the operation of all nuclear reactors for a period of 75 years following the de-commissioning of any nuclear reactor, THESE INTERVENERS therefore do submit to you that following written Interrogatories which we would ask you to consider answering and providing your answers as well to the OEB in order that the OEB may have before it all of the relevant information in may choose to consider in the adjudication of the merits of this Application to determine whether, in fact, there is any need for the construction of a new 500 KV line form Bruce GSS to Milton TS

INTERROGATORIES TO:

CANADIAN SAFETY NUCLEAR COMMISSION,

Ref: Exh.. B / Tab 1 / Schedule 3 -

Preamble: *Statement by HONI* - (p. 1, line 25 - 28, and p. 2, line 1-14)

HONI states that the present transmission system from the Bruce has the capability to transmit about 5,000 MW of the generation from the Bruce area.- and that there is a shortfall of 3,100 MW in needed transmission capacity.

OEB ISSUE NUMBER: 1.1

1.1 Has the need for the proposed project been established ?

INTERROGATORIES

1. Does the Canadian Nuclear Safety Commission ('CNSC') have jurisdiction over the 9 reactor Units that have been constructed as the Douglas Point GS, Bruce 'A' GS, and Bruce 'B' GS , known as the Bruce GSS Complex, now operated by Bruce Power ?

2. Is it correct that CNSC requires all nuclear generation operators to keep all operational records on electrical power generation from all nuclear reactors, including those described above, for a period of 75 years after the decommissioning of any reactor ?

3. The Hydro Electric Commission of Ontario, and/or Ontario Hydro and/or Atomic Energy of Canada, constructed the Douglas Point Reactor in the 1960's and from which a 230 KV Transmission line was constructed to Orangeville.

   A. Who was the licensed builder of that Douglas Point Reactor ?

   B. Did Ontario Hydro ever assume ownership of the Douglas Point Reactor, when, and what happened to all of the operational records of that reactor at that time ?

C. In any transition from one licensee/operator to another successor licencee what requirements does the CNSC impose upon each of those two licensees as to the archiving of all operational records in respect to every nuclear reactor, and what provision is made for public access to such records ?

D. When Ontario Hydro was broken out by the Ontario Government into Hydro One Inc. Hydro One Networks Inc. ('HONI'), and Ontario Power Generation ('OPG'), where were the records of the operation of the all 9 reactors at the Brice GSS complex require to be kept, and by whom ?

E. In 1998 OPG assumed all operational authorities of the prior licensee, Ontario Hydro, Was there a formal application made by each of Ontario Hydro and/or OPG to assume the licence of operation, and could the CNCS provide a copy of the written undertakings that OPG assumed, if any, in receiving a successor licence from CNSC in respect to archiving of all operational records, and what provision was made of the former Ontario Hydro (which was a wholly Owned Crown agency of the Ontario Government, vis-a-vis archiving of all operational records of the Bruce Nuclear GSS ?

F. When OPG leased its Bruce Site to Bruce Power LP in 1991 was there a formal application made by each of OPG and/or Bruce Power LP to assume the licence of operation, and could the CNCS provide a copy of the written undertakings that Bruce Power assumed, if any, in receiving a successor licence from CNSC in respect to archiving of all operational records, and what provision was made of the former OPG which was and still a wholly Owned Crown agency of the Ontario Government, vis-a-vis archiving of all operational records of the Bruce Nuclear GSS ?

4, Does CNCS mandate or require by legislation, regulation, contract or protocol, that any licencee operator of any nuclear facility keep all generation and/or transmission records for any term certain after operations of any nuclear generation facility commences and for subsequent. term in years must such records be kept, and how may they be readily accessed.

5. HONI has stated that it has no information prior to 2002 on the operation of the Bruce GSS facilities prior top 2002 and that information is not available to the Ontario Power Authority, ('OPA'), nor to the Independent Electrical System Operator, ('IESO'). HONI is a successor to Ontario Hydro, and a member of the OPA. Is HONI in violation of any federal requirement that requires it to store and archive any information on any of the Bruce GSS facilities, and for failing to do so ?

6. Is there any requirement that requires Bruce Power to deny to the OEB and the Interveners in this application all historic information that it may have on site in respect to the operation,

generation and transmission of electrical power generated from the nuclear generation facilities within the Bruce GSS Complex since the early 1960's ?

7. What is the understanding of CNSC as to any time requirements established by the Province of Ontario, by statute, regulation, contract or protocol in respect to the archiving of keep all generation and/or transmission records for any term certain after operations of any nuclear generation facility commences and for subsequent. term in years must such records be kept, and how may they be readily accessed ?

8. What steps must these Interveners now take to access the records that have been denied to them by HONI and Bruce Power in order that this information can be made available to the OEB on May 1st, 2008 at the commencement of the Hearings.

In the interest of allowing the OEB to have before it at the Hearings set for May 1st we are requesting the consideration of the CNSC in attempting to provide any answers it may have sufficient knowledge about to fully answer in order that the OEB and others may rely upon that information, in order that the OEB may make an informed decision on the Application of HONI

We therefore set out the questions asked of both HONI and Bruce Power, none of which have been yet answered by HONI, and which answers have been refused by Bruce Power. Your assistance would be greatly appreciated. Should any questions be beyond the scope or jurisdiction of your Commission you might simply so indicate.

THE FOLLOWING ARE THE WRITTEN INTERROGATORIES PREVIOUSLY SUBMITTED TO HONI, TO WHICH, AS YET, HONI HAS NOT PROVIDED ANY ANSWER THERETO, AND TO WHICH OPG IS INVITED TO PROVIDE ANY INFORMATION THEREON AS IT MAY SO OFFER TO PROVIDE.

ADDITIONAL INTERROGATORIES TO WHICH HONI HAS YET TO MAKE REPLY

A. **THE FOLLOWING INTERROGATORIES (Nos. 1 - 93)** are made in respect to each of Issue 1.2., to allow the full history of Power Generation and Power Transmission from the Bruce to be properly understood in respect to:

- FIRSTLY: each of the three Nuclear generating stations, (Douglas Point, Bruce "A" and Bruce "B"), that have been operated at the Bruce, first by Ontario Hydro, then Ontario Power Generation, and since 2001, Bruce Power, and

- SECONDLY: each of the 5 Transmission lines (three 230 KV and two 500 KV) that have transmitted all power generated and delivered from the above 3 Nuclear Generating stations.

A.1 DOUGLAS POINT NUCLEAR REACTOR

1. **(A)** What was the original commissioning 'in-service' date, (approx. 1968,) ? and
(B) What was the de-commissioning 'out-of-service' date, (approx. 1984), of the original Douglas Point Nuclear Power Plant located at Douglas Point in Bruce County, ("Douglas Point Reactor") ?

2. What was the actual maximum electrical generation capacity, expressed in MW/h, of the Douglas Point Reactor which had an original design capacity of 200 MW/h ?

3. From the 'in-service" date of commissioning of the Douglas Point Reactor to the 'out-of-service" date of decommissioning of the Douglas Point Reactor, through which Transmission Line(s) was/were transmitted the power generated from the Douglas Point Reactor before the generation of electrical power from any of the nuclear power generation Units at either Bruce 'A' or Bruce 'B' at the Bruce facility, ?

4. **(A)** Was/were the Transmission Line(s), through which was transmitted the power generated from the Douglas Point Reactor, constructed specifically to transmit the power generated from the Douglas Point Reactor to the Ontario Grid, and
(B) If not, why not ?

5. What was the maximum Voltage transmission capacity of the Transmission Line(s) that transmitted the electrical power generated from the Douglas Point Reactor ?

6. **(A)** From what municipal starting location and what municipal ending location was/were constructed the Transmission Line(s) that transmitted the electrical power generated from the Douglas Point Reactor ?
(B) What is/are the measured length of that/those Transmission Line(s) in separate and combined length, expressed in KM, ? and
(C) When was such construction of that/those Lines completed ?

7. What was the maximum transmission capacity, expressed in MW/h, of each of that/those Transmission Line(s) that transmitted the electrical power generated from the

Douglas Point Reactor during its commissioned years of electrical power generation ?

8. **(A)** Is/are the Transmission Line(s) that transmitted the electrical power generated from the Douglas Point Reactor still in service today ?, and if so,
(B) Is the maximum electrical transmission capacity of that those Transmission Line(s), expressed in MW/h, still the same today as it/they was/were during the commissioned operation of and power generation from the Douglas Point Reactor ? and

(C) If not - why not ?

9. **(A)** Since the Douglas Point Reactor was de-commissioned has/have the dedicated Transmission Line(s) used originally to transmit electrical energy produced at the Douglas Point Reactor been used since that date of de-commissioning of the Douglas Point Reactor, been used for the transmission of electrical power otherwise and since 1984 generated from the Bruce area facilities ?, and
(B) if not - why not ?

10. **(A)** If the dedicated Transmission Line(s) used originally to transmit electrical energy produced at the Douglas Point Reactor have not been used since de-commissioning in 1984 or have not been used to the same maximum intensities of electrical transmission as so utilized while the Douglas Point Reactor was commissioned and so used, why ?, and
(B) Are there transmission upgrades that could now be made to restore the transmission capacity of that/those Transmission Line(s) to maximum 1968 - 1984 transmission capacity levels ?

11. What is the present maximum electrical transmission capacity of the Transmission Line(s), expressed in MW/h. used originally to transmit electrical energy produced at the Douglas Point Reactor ?

12. What would be the maximum electrical transmission capacity of the Transmission Line(s), expressed in MW/h, used originally to transmit electrical energy produced at the Douglas Point Reactor, with maximum upgrades made thereto ?

A.2 BRUCE "A" NUCLEAR FACILITY

13. What was the original "in-service" commissioning dates for each of Units '1', '2', '3' and '4' of Bruce 'A' at the Bruce ?

14. What was the design electrical power generation capacity of <u>each</u> of Units '1', '2', '3' and '4' of Bruce 'A', expressed in MW/h ?

15. What is the actual maximum 'net generating capacity' of <u>each</u> of Units '1', '2', '3' and '4' of Bruce 'A,' expressed in MW/h. (The Auditor General of Ontario determined in April, 2007 in his Report on the Refurbishment Agreement between Bruce Power and the OPA made October 17th, 2005, that each Unit of Bruce 'A' had an authorized net generating capacity of 769 MW/h) ?

16. On what dates were each of Units '1' and '2' of Bruce "A' de-commissioned and taken out-of-service and ceased generating electrical power at the Bruce ?

17. On the dates of the respective original "in-service" commissioning dates for each of Units '1', '2', '3' and '4' at Bruce 'A' what were the contemplated power generation electrical life expectancies for each of Units '1', '2', '3' and '4' of Bruce 'A' expressed as contemplated decommissioning dates ?

18. **(A)** Were the original contemplated dates for de-commissioning of Units '1' and '2' of Bruce 'A' at substantial variance with the actual dates of de-commissioning of Units '1' and '2' of Bruce 'A' ?, <u>and</u>
(B) If so, - why ?

19. On what dates were each of Units '3' and '4' of Bruce "A' originally scheduled for de-commission to be taken out-of-service and cease generating electrical power at the Bruce ?

20. **(A)** <u>*During what calendar periods of time*</u> were each of Units '1', '2', '3' and '4' of Bruce 'A' each producing, at the same time, a maximum power generation capacity, in a combined format, a maximum power generation capacity, in a combined format, ? <u>*and*</u>
(B) <u>*What was*</u> the maximum combined generation capacity from all of Units '1', '2', '3' and '4' of Bruce 'A', all generating maximum power at capacity together, at the same time, <u>as expressed in MW/h</u> ?

21. **(A)** ; <u>*During what calendar periods of time*</u> were **(1)** each of Units '1', '2', '3' and '4' of Bruce 'A' each producing, at the same time, a maximum power generation capacity, in a combined format, while at the same time **(2)** each of Units '1', '2', '3' and '4' of Bruce 'B' were also each producing a maximum power generation capacity, in a combined format, from each of the 4 Units at Bruce 'B' ? <u>*and*</u>
(B) <u>*What was*</u> the maximum double combined generation capacity from all of Units '1', '2', '3' and '4' of Bruce 'A', and from Units '1', '2', '3' and '4' of Bruce 'A', both and all generating maximum power at capacity together, at the same time, <u>as expressed in MW/h</u> ?

22. **(A)** *During what calendar periods of time* were **(1)** each of Units '1', '2', '3' and '4' of Bruce 'A' each producing, at the same time, a maximum power generation capacity, in a combined format, while at the same time, **(2)** each of Units '1', '2', '3' and '4' of Bruce 'B' were also each producing a maximum power generation capacity, in a combined format, from each of the 4 Units at Bruce 'B', and **(3)** the Douglas Point Reactor was also, at the same time, producing a maximum power generation capacity therefrom ?, , *and*
(B) *What was* the maximum triple combined generation capacity from all of Units '1', '2', '3' and '4' of Bruce 'A', and from Units '1', '2', '3' and '4' of Bruce 'B', and the Douglas Point Reactor, all generating together, at the same time, as expressed in MW/h, and all three generating maximum power at capacity together, at the same time, as expressed in MW/h ?

23. Specifically what was the maximum generation capacity, expressed in MW/h of the total electrical power if generated at the same time from the combination of Units '1', '2', '3' and '4' of Bruce 'A' and from Units '1', '2', '3' and '4' of Bruce 'B' and the Douglas Point Reactor ?

23 (a). **(A)** *Has the transmission capacity* along all Transmission Lines originating at the Bruce, as constructed for transmitting all maximum generation capacity of all electrical power generated from the combination from each of Units '1', '2', '3' and '4' of Bruce 'A', and from Units '1', '2', '3' and '4' of Bruce 'B', and the Douglas Point Reactor for transmission to the Ontario Hydro Grid, ever been so deficient so as not to be able to transmit any such maximum generation of power so produced from Bruce 'A', Bruce 'B' and Douglas Point Reactor combined ? , *and*
(B) *If so* during what calendar periods of time has such transmission capacity been so deficient ? *and*
(C) *If so*, what line outages or transmission deficiencies caused such lack of transmission capacity ?

23 (b) Of the total power produced from all present power producing nuclear units within Bruce "A" GS what amount, expressed in MW, **and also** expressed as a percentage of gross power production, is represented by power so produced and consumed by Bruce Power itself on site.

A.2 BRUCE "B" NUCLEAR FACILITY

24. What was the original "in-service" commissioning dates for each of Units '1', '2', '3' and '4' of Bruce 'B' at the Bruce ?

25. What was the design electrical power generation capacity of each of Units '1', '2', '3' and '4' of Bruce 'B' expressed in MW/h ?

26. **(A)** What is the actual maximum 'net generating capacity' of each of each of Units '1',

'2', '3' and '4' of Bruce 'B' expressed in MW/h ? (The Auditor General of Ontario determined in April, 2007 in his *Report on the Refurbishment Agreement between Bruce Power and the OPA made October 17th, 2005*, that each Unit of Bruce 'A' had an authorized net generating capacity of 785 MW/h) ? In the *IPSP Discussion Paper # 5 - Transmission* produced by the OPA , filed as Exhibit b, Tab 6, Schedule 5, Appendix 5, & on page 44 thereof the OPA states that each of Units 1, 2, 3 & 4 of Bruce 'B' have a generation capacity of 890 MW/h).

(B) Which statement as to the production capacity of each of Units1, 2, 3 & 4 of Bruce 'B' is wrong ? *and*

(C) Has the OPA taken steps to correct the wrong information disseminated by the Auditor General of Ontario, or has the OPA stated the wrong production capacity of each of Units 1, 2, 3 & 4 of Bruce 'B' and so advised the OEB and participants and interveners in this proceeding.

27. On the dates of the respective original "in-service" commissioning dates for each of Units '1', '2', '3' and '4' of Bruce 'B' what were the contemplated power generation electrical life expectancies for each of Units '1', '2', '3' and '4' of Bruce 'B'. ?

28. **(A)** *During what calendar periods of time* have each of Units '1', '2', '3' and '4' of Bruce 'B' each been producing, at the same time, a maximum power generation capacity, in a combined format ? , *and*

(B) *What is* the maximum combined generation capacity from all of Units '1', '2', '3' and '4' of Bruce 'B' all generating maximum power at capacity, together, at the same time, as expressed in MW/h ?

28(a) Of the total power produced from all present power producing nuclear units within Bruce "B" GS what amount, expressed in MW, **and also** expressed as a percentage of gross power production, is represented by power so produced and consumed by Bruce Power itself on site

A.3 TRANSMISSION LINES:

A.3.1 230 KV TRANSMISSION LINE BRUCE TO HANOVER/ORANGEVILLE:

29. **(A)** Was this 230 KV Transmission Line to Orangeville constructed under the authority of the Hydro Electric Power Commission of Ontario ?, and

(B) what was/is the length of such Line, expressed in KM ?, and

(C) what was the 'in-service date for the transmission of power along such 230 KV Line?

30. Was this 230 KV Transmission Line to Orangeville built originally to transmit power generated from the Douglas Pont Reactor ?

31. What was the maximum design transmission capacity of this 230 KV Line to Orangeville, expressed in MW/h, when it was originally put into service ?

32. What has been the maximum sustained electrical power transmission along this existing 230 KV Line to Orangeville, expressed in MW/h ?

33. A former Minister of Energy of Ontario, The Hon. Dennis Timbrell, advised the Ontario Legislature, on June 6th, 1975, that the existing 230 KV line was capable of transmitting all of the power generated from Units '1' and '2' of what is now and was then Bruce 'A'. The Auditor General of Ontario has advised that the net generation capacity for each of the 4 Units at Bruce 'A' was 769 MW/h. This represents 1,538 MW/h of power generation. Did the 230 KV Line have, from the outset the design transmission capacity to transmit thereon 1,538 MW/h as generated from the Bruce.

(A) Was that statement technically correct when then made, and is that statement still technically correct today ?, and

(B) If not - why not?

34. Did the 230 KV line to Orangeville have the design capacity to transmit 1,538 MW/h as might be produced from the Units '1' and '2' together with all additional generation capacity from the Douglas Point Reactor, expressed as MW/h ?

35. **(A)** What is the present maximum transmission capacity of this 230 KV Transmission line to Orangeville, expressed in MW/h ?, and

(B) If it is lower than the original design transmission capacity, why ? , and,

(C) If so, are there any technical reasons why this 230 KV Line cannot be refurbished to return it to its original design transmission capacity ? , and

(D) If so, what are those technical reasons ?

36. **(A)** Is this 230 KV Transmission Line to Hanover TS /Orangeville TS dedicated to transmit from any particular Unit at the present time, from either Bruce 'A' or Bruce 'B' ?, and

(B) If so , from which dedicated Units at Bruce 'A' and/or Bruce "B"?

37. **(A)** What maximum amount of electrical power is typically delivered to the Hanover Transformer Substation ("TS") from the existing 230 KV Transmission Line, expressed in MW/h, and,

(B) What amount of electrical power is typically delivered beyond Hanover, from

Hanover to Orangeville TS, expressed in MW/h ?

38. **(A)** Are any of the 230 KV Transmission Line towers some of which were constructed over 40 years ago in present need of replacement or refurbishment, and
(B) If so , which particular towers are in such need, all of which the towers being presently numbered by HONI ?

39. **(A)** Was a working life cycle ever originally established for the 230 KV Transmission towers constructed for this 230 KV Line to Orangeville ? , and
(B), If so what then was the forward calendar date for the end of such working life expectancy for the 230 KV Towers themselves ?

40. **(A)** What is the present working life cycle expectancy for the existing 230 KV Towers within this existing 230 KV Corridor to Orangeville ? , and
(B) What is the forward calendar date now utilized as the date after which the existing 230 KV Line Towers will no longer be licensed for use by HONI ?

41. **(A)** What is the present working life cycle expectancy for each of the existing 230 KV power cable/conduit lines as strung between each of the 230 KV Towers within this existing 230 KV Corridor ?, and
(B) What is the forward calendar date now utilized as the date after which each of the existing 230 KV power cable/conduit lines as strung between each of the 230 KV Towers as located suspended from such 230 KV Towers, within this existing 230 KV Corridor, will no longer be licensed for use by HONI ?

42. **(A)** Since the date of construction of each of the Towers within this 230 KV transmission line in the early 1960's, over 40 years ago, have any of the towers and/or conduit power transmission cable/conduit lines ever had to have been replaced or repaired because of an event beyond working life deterioration ? , and
(B) If so , please particularize each technical reason for each such repair or replacement, naming the present municipality, the Lot and Concession No. and the 230 KV tower number as presently so numbered by HONI on its current photo base mapping as provided, the date of such event involving loss repair and/or replacement ?

A.3.2 230 KV TRANSMISSION LINE BRUCE TO OWEN SOUND:

43. **(A)** What was this technical reason for the construction of this 230 KV Transmission Line to Owen Sound ?, and
(B) What was/is the length of such Line, expressed in KM ?, and
(C) What was the 'in-service' date for the transmission of power along such 230 KV Line?

44. **(A)** When was the construction of this 230 KV Transmission Line to Owen Sound completed ?, and
(B) *What is* the end location for this 230 KV Transmission Line ? , and
(C) To where is the electrical power further distributed, as transmitted by this 230 KV Line to Owen Sound ?

45. What was the maximum design transmission capacity of this 230 KV Line to Owen Sound, expressed in MW/h, when it was originally put into service ?

46. What has been the maximum sustained electrical power transmission along this existing 230 KV Line to Owen Sound, expressed in MW/h ?

47. Did this 230 KV line to Owen Sound have the design capacity to transmit 1,538 MW/h as might be produced from the either Bruce 'A' or Bruce 'B'. ?

48. **(A)** What is the present maximum transmission capacity of this 230 KV Transmission line, to Owen Sound expressed in MW/h ? , and
(B) If it is lower than the original design transmission capacity, why ? , and,
(C) If so, are there any technical reasons why this 230 KV Line to Owen Sound cannot be refurbished to return it to its original design transmission capacity ?, and
(D) If so, what are those technical reasons ?

49. **(A)** Is this 230 KV Transmission Line to Owen Sound dedicated to transmit from any particular Unit at the present time, from either Bruce 'A' or Bruce 'B' ? , and
(B) If so , from which dedicated Units at Bruce 'A' and/or Bruce 'B'?

50. Are any of the 230 KV Transmission Line towers in this Line to Owen Sound which were constructed over 30 years ago in present need of replacement or refurbishment ?

51. **(A)** Was a working life cycle ever originally established for the 230 KV Transmission towers constructed for this 230 KV Line to Owen Sound, ? and
(B), If so what then was the forward calendar date for the end of such working life expectancy for the 230 KV Towers to Owen Sound ?

52. **(A)** What is the present working life cycle expectancy for the existing 230 KV Towers to Owen Sound within this existing 230 KV Corridor ? , and
(B) What is the forward calendar date now utilized as the date after which the existing 230 KV Line Towers to Owen Sound will no longer be licensed for use by HONI ?

53. **(A)** What is the present working life cycle expectancy for each of the existing 230 KV power cable/conduit lines as strung between each of the 230 KV Towers to Owen Sound within this existing 230 KV Corridor ? , and
(B) What is the forward calendar date now utilized as the date after which each of the

existing 230 KV power cable/conduit lines as strung between each of the 230 KV Towers to Owen Sound as located suspended from such 230 KV Towers, within this existing 230 KV Corridor, will no longer be licensed for use by HONI ?

54. **(A)** Since the date of construction of each of the Towers within this 230 KV transmission line in the '70s or '80s, over 25 years ago, have any of the towers and/or conduit power transmission cable/conduit lines ever had to have been replaced or repaired because of an event beyond working life deterioration ?, and
(B) If so , please particularize each technical reason for each such repair or replacement, naming the present municipality, the Lot and Concession No. and the 230 KV tower number as presently so numbered by HONI on its current photo base mapping as provided, the date of such event involving loss repair and/or replacement ?

A.3.3 230 KV TRANSMISSION LINE BRUCE TO DETWEILER:

55. **(A)** What was this technical reason for the construction of this 230 KV Transmission Line to Detweiler ? and
(B) What was/is the length of such Line, expressed in KM ? , and
(C) What was the 'in-service date for the transmission of power along such 230 KV Line?

56. **(A)** When was this construction of this 230 KV Transmission Line to Detweiler completed ?, and
(B) *What is* the end location for this 230 KV Transmission Line ? , and
(C) To where is the electrical power further distributed, as transmitted by this 230 KV Line to Detweiler ?

57. What was the maximum design transmission capacity of this 230 KV Line to Detweiler, expressed in MW/h, when it was originally put into service ?

58. What has been the maximum sustained electrical power transmission along this existing 230 KV Line to Detweiler, expressed in MW/h ?

59. Did this 230 KV line to Detweiler have the design capacity to transmit 1,538 MW/h as might be produced from the either Bruce 'A' or Bruce 'B'. ?

60. **(A)** What is the present maximum transmission capacity of this 230 KV Transmission line to Detweiler, expressed in MW/h ?, and
(B) If it is lower than the original design transmission capacity, why, and, **(C)** if so, are there any technical reasons why this 230 KV Line to Detweiler cannot be refurbished to return it to its original design transmission capacity ?, and

(D) If so, what are those technical reasons ?

61. **(A)** Is this 230 KV Transmission Line to Detweiler dedicated to transmit from any particular Unit at the present time, from either Bruce 'A' or Bruce 'B ?', and
(B) If so , from which dedicated Units at Bruce 'A' and/or Bruce "B"?

62. Are any of the 230 KV Transmission Line towers in this Line to Detweiler which were constructed over2 5 years ago in present need of replacement or refurbishment ?

63. **(A)** Was a working life cycle ever originally established for the 230 KV Transmission towers constructed for this 230 KV Line to Detweiler ?, and
(B), If so what then was the forward calendar date for the end of such working life expectancy for the 230 KV Towers to Detweiler, ?

64. **(A)** What is the present working life cycle expectancy for the existing 230 KV Towers to Detweiler within this existing 230 KV Corridor ?, and
(B) What is the forward calendar date now utilized as the date after which the existing 230 KV Line Towers to Detweiler will no longer be licensed for use by HONI ?

65. **(A)** What is the present working life cycle expectancy for each of the existing 230 KV power cable/conduit lines as strung between each of the 230 KV Towers to Detweiler within this existing 230 KV Corridor ? , and
(B) What is the forward calendar date now utilized as the date after which each of the existing 230 KV power cable/conduit lines as strung between each of the 230 KV Towers to Detweiler as located suspended from such 230 KV Towers, within this existing 230 KV Corridor, will no longer be licensed for use by HONI ?

66. **(A)** Since the date of construction of each of the Towers within this 230 KV transmission Line in the '70s or '80s to Detweiler, over 25 years ago, have any of the towers and/or conduit power transmission cable/conduit lines ever had to have been replaced or repaired because of an event beyond working life deterioration ?, and
(B) If so , please particularize each technical reason for each such repair or replacement, naming the present municipality, the Lot and Concession No. and the 230 KV tower number as presently so numbered by HONI on its current photo base mapping as provided, the date of such event involving loss repair and/or replacement ?

A.3.4 500 KV TRANSMISSION LINE BRUCE TO MILTON:

67. **(A)** What was/is the length of such Line, expressed in KM ?, and
(B) What was the 'in-service date for the transmission of power along such 500 KV

Transmission Line to Milton?

68. Was this 500 KV Transmission Line to Milton built originally to transmit power generated from the the combined 4 Units 1, 2, 3, and 4, located at Bruce 'A'?

69. What was the maximum design transmission capacity of this 500 KV Line to Milton, expressed in MW/h, when it was originally put into service ?

70. What has been the maximum sustained electrical power transmission along this existing 500 KV Line to Milton, expressed in MW/h ?

71. HONI has published and disseminated printed material in its submission to the Minister of the Environment for Approval under the *Environmental Assessment Act* that states in writing that the proposed 500 KV line as proposed in this application for leave to construct will have a transmission capacity, expressed in MW/h, of 3,000 MW/h.
(A) Does the existing 500 KV line constructed from the Bruce to Milton in the late '70s, some 30 years ago, have the present transmission capacity to transmit 3,000 MW/h ?, and
(B), If not - why not ? and
(C) If not now but it previously had that transmission capacity is there any present technical reason why such original transmission capacity cannot be restored to the 500 KV Line by replacement and/or refurbishment.

73. Did the 500 KV line to Milton have the design capacity to transmit 3,000 MW/h of generation power or more as might be produced from the 4 units at either of Bruce 'A' of Bruce 'B' together with all additional 200 MW/h generation capacity from the Douglas Point Reactor, expressed as MW/h ?

74. **(A)** What is the present maximum transmission capacity of this 500 KV Transmission Line, to Milton expressed in MW/h ? , and
(B) If it is lower than the original design transmission capacity, why ? , and,
(C) If so, are there any technical reasons why this 500 KV Line cannot be refurbished to return it to its original design transmission capacity, and **(D)** if so, what are those technical reasons ?

75. **(A)** Is this 500 KV Transmission Line to Milton dedicated to transmit from any particular Unit at the present time, from either Bruce 'A' or Bruce 'B' ? , and
(B) If so , from which dedicated Units at Bruce 'A' and/or Bruce "B"?

76. **(A)** Are any of the 500 KV Transmission Line towers which were constructed about 30 years ago in present need of replacement or refurbishment ?, and
(B) If so , which towers are in such need, all of the towers being presently numbered by HONI?

77. **(A)** Was a working life cycle ever originally established for the 500 KV Transmission towers constructed for this 500 KV Line to Milton ?, and
(B), If so what then was the forward calendar date for the end of such working life expectancy for the 500 KV Towers themselves ?

78. **(A)** What is the present working life cycle expectancy for the existing 500 KV Towers within this existing 500 KV Corridor to Milton ?, and
(B) What is the forward calendar date now utilized as the date after which the existing 500 KV Line Towers will no longer be licensed for use by HONI ?

79. **(A)** What is the present working life cycle expectancy for each of the existing 500 KV power cable/conduit lines as strung between each of the 500 KV Towers within this existing 500 KV Corridor to Longwood ?, and
(B) What is the forward calendar date now utilized as the date after which each of the existing 500 KV power cable/conduit lines as strung between each of the 500 KV Towers as located suspended from such 500 KV Towers, within this existing 500 KV Corridor to Longwood, will no longer be licensed for use by HONI ??

80. **(A)** Since the date of construction of each of the Towers within this 500 KV transmission line in the late 1970's, almost 30 years ago, have any of the towers and/or conduit power transmission cable/conduit lines ever had to have been replaced or repaired because of an event beyond working life deterioration ?, and
(B) If so , please particularize each technical reason for each such repair or replacement, naming the present municipality, the Lot and Concession No. and the 500 KV tower number as presently so numbered by HONI on its current photo base mapping as provided, the date of such event involving loss repair and/or replacement

A.3.4 500 KV TRANSMISSION LINE BRUCE TO LONGWOOD:

81. **(A)** What was/is the length of such Line, expressed in KM ? , and
(B) What was the 'in-service' date for the transmission of power along such 500 KV Transmission Line to Longwood?

82. Was this 500 KV Transmission Line to Longwood built originally to transmit power generated from the the combined 4 Units 1, 2, 3, and 4, located at Bruce 'A ' and/or Bruce 'B'?

83. What was the maximum design transmission capacity of this 500 KV Line to Longwood, expressed in MW/h, when it was originally put into service ?

84. What has been the maximum sustained electrical power transmission along this existing 500 KV Line to Longwood, expressed in MW/h ?

85. HONI has published and disseminated printed material in its submission to the Minister of the Environment for Approval under the *Environmental Assessment Act* that states in writing that the proposed 500 KV line as proposed in this application for leave to construct will have a transmission capacity, expressed in MW/h, of 3,000 MW/h ?.
(A) Does the existing 500 KV line constructed from the Bruce to Longwood in the late '70s, almost 30 years ago, have the present transmission capacity to transmit 3,000 MW/h ?, and
(B), If not - why not, and
(C) If not now but it previously had that transmission capacity is there any present technical reason why such original transmission capacity cannot be restored to the 500 KV Line by replacement and/or refurbishment.

86. Did the 500 KV line to Longwood have the design capacity to transmit 3,000 MW/h of generation power or more as might be produced from the 4 units at either of Bruce 'A' of Bruce 'B' together with all additional 200 MW/h generation capacity from the Douglas Point Reactor, expressed as MW/h ?

87. **(A)** What is the present maximum transmission capacity of this 500 KV Transmission Line, to Longwood expressed in MW/h ?, and
(B) If it is lower than the original design transmission capacity, why ?, and,
(C) If so, are there any technical reasons why this 500 KV Line cannot be refurbished to return it to its original design transmission capacity ?, and
(D) If so, what are those technical reasons ?

88. **(A)** Is this 500 KV Transmission Line to Longwood dedicated to transmit from any particular Unit at the present time, from either Bruce 'A' or Bruce 'B' ?, and
(B) If so , from which dedicated Units at Bruce 'A' and/or Bruce "B"?

89. **(A)** Are any of the 500 KV Transmission Line towers which were constructed within the 500 KV Line to Longwood over 25 years ago in present need of replacement or refurbishment ?, and
(B) If so , which towers are in such need, all of the towers being presently numbered by HONI?

90. **(A)** Was a working life cycle ever originally established for the 500 KV Transmission towers constructed for this 500 KV Line to Longwood ?, and
(B), If so what then was the forward calendar date for the end of such working life expectancy for the 500 KV Towers themselves ?

91. **(A)** What is the present working life cycle expectancy for the existing 500 KV Towers

within this existing 500 KV Corridor to Longwood ? , and

(B) What is the forward calendar date now utilized as the date after which the existing 500 KV Line Towers will no longer be licensed for use by HONI ?

92. **(A)** What is the present working life cycle expectancy for each of the existing 500 KV power cable/conduit lines as strung between each of the 500 KV Towers within this existing 500 KV Corridor to Longwood ?, and

(B) What is the forward calendar date now utilized as the date after which each of the existing 500 KV power cable/conduit lines as strung between each of the 500 KV Towers as located suspended from such500 KV Towers, within this existing 500 KV Corridor to Longwood, will no longer be licensed for use by HONI ?

93. **(A)** Since the date of construction of each of the Towers within this 500 KV Transmission Line to Longwood over 25 years ago, have any of the towers and/or conduit power transmission cable/conduit lines ever had to have been replaced or repaired because of an event beyond working life deterioration, and

(B) If so , please particularize each technical reason for each such repair or replacement, naming the present municipality, the Lot and Concession No. and the 500 KV tower number as presently numbered by HONI on its current photo base mapping as provided, the date of such event involving loss repair and/or replacement

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THE FOLLOWING ADDITIONAL WRITTEN INTERROGATORIES WERE PRESENTED TO BRUCE POWER FOR WRITTEN RESPONSE. BRUCE POWER HAS DECLINED TO MAKE ANY RESPONSE TO THE ABOVE INTERROGATORIES AS SUBMITTED TO HONI NOR TO ANY OF THE FOLLOWING WRITTEN INTERROGATORIES MADE OF BRUCE POWER.

THESE INTERVENERS SET OUT THOSE INTERROGATORIES MADE TO BRUCE POWER TO ALLOW OPG TO CONSIDER WHETHER IT HAS ANY INFORMATION WHICH IT FEELS MAY BE OF ASSISTANCE TO THE OEB IN RESPECT TO THE QUERIES RAISED BELOW, IN ORDER THAT THE OEB MAY HAVE BEFORE IT THE BEST AND MOST COMPLETE INFORMATION AVAILABLE IN RESPECT OF WHICH IT CAN MAKE ITS EVENTUAL DECISION AS TO THE WHETHER THE NEED FOR THE CONSTRUCTION OF A NEW 500 KV TRANSMISSION LINE FROM BRUCE TO MILTON IS NEEDED OR NOT.

B. GENERAL INTERROGATORIES:

THE FOLLOWING INTERROGATORIES, (Nos. 94 - 106) are made in respect to each of Issue 1.2, Issue 1.3, and issue 1.4,

B.1 **Ref:** Exh. B / Tab 6 / Schedule 5 / Appendix 2
Exh B / Tab 6 / Schedule 5 / Appendix 4

94. The CEO of OPA, Jann Carr wrote to Hydro One on Dec 22. 2006, (Exhibit B, Tab 6, Schedule 5, Appendix 2) and on page 2 of that letter (below Figure 1) ans stated therein that

> ***"The existing transmission system that transmits power from the Bruce area . . . has sufficient capacity for the existing generation there now, . . . a combined output of about 5,060MW."***

The CEO of OPA, Jan Carr, later wrote to Hydro One on March 23, 2007 (Exhibit B-6-5, Appendix 4), and therein stated at the bottom of Page 1

> ***"Thus, the long term solution must be able to increase the transmission capability of the Bruce system from today's 5,000 MW level to about 8,300 MW. From this perspective, the only technically acceptable and practical solution is a new 500 KV double-circuit line from the Bruce area directly to the GTA"***

Does Bruce Power now state that the words "*transmission capability*" in the last letter of OPA by Jan Carr has exactly the same meaning as *"transmission capacity"* ?

95. Would Bruce Power now clearly state what are the correct technical answers to the following questions: ?

A. *What was the actual maximum transmission capacity from the Bruce Power Nuclear Facilities, on October 17, 2005, expressed in MW/h, of the combined 5 Transmission Lines, namely 2 x 500 KV lines and 3 x 230KV lines ?*

B. *What was the actual maximum transmission capacity from the Bruce Power Nuclear Facilities, on December 22, 2006, expressed in MW/h, of the combined 5 Transmission Lines, namely 2 x 500 KV lines and 3 x 230KV lines ?*

C. *What was the actual maximum transmission capacity from the Bruce Power Nuclear Facilities, on March 23rd, 2007, expressed in MW/h, of the combined 5 Transmission Lines, namely 2 x 500 KV lines and 3 x 230KV lines ?*

D. *What was the actual maximum transmission capacity from the Bruce Power Nuclear Facilities, on March 29rd, 2007, expressed in MW/h, of the combined 5 Transmission Lines, namely 2 x 500 KV lines and 3 x 230KV lines ?*

E. *What is the actual maximum transmission capacity from the Bruce Power Nuclear Facilities, on October 1st, 2007, expressed in MW/h, of the combined 5 Transmission Lines, namely 2 x 500 KV lines and 3 x 230KV lines .?*

F. *What is the actual maximum transmission capacity from the Bruce Power Nuclear Facilities, today, on February 25th, 2008, expressed in MW/h, of the combined 5 Transmission Lines, namely 2 x 500 KV lines and 3 x 230KV lines .?*

G. *Would the following statement, if it had been then made by Jan Carr, as CEO of the OPA on December 22, 2006, have been a technically correct statement of fact upon which the OEB, HONI and the power consumer ratepayers of Ontario could absolutely and unequivocally rely with absolute certainty as to its truthfulness and correctness, and if not - why not ?*

> ***"The existing transmission system that transmits power from the Bruce area . . . presently only has a maximum transmission capacity for the existing generation there now, . . . a combined output of about 5,060MW."***

H. *Would the following statement, if it had been then made by Jan Carr, as CEO of the OPA on December 22, 2006, have been a technically correct statement of fact upon which the OEB, HONI and the power consumer ratepayers of Ontario could absolutely and unequivocally rely with absolute certainty as to its truthfulness and correctness, and if not - why not ?*

> ***"Thus, the long term solution must be able to increase the maximum transmission capacity of the Bruce system from today's 5,000 MW level to about 8,300 MW. From this perspective, the only technically acceptable and practical solution is a new 500 KV double-circuit line from the Bruce area directly to the GTA"***

96. What is the measured power loss, expressed as a percentage of MW/h between the start of power transmission at the Bruce and the 5 different termination points in 6 different Ontario municipalities of the five different transmission lines, 3 x 230 KV Lines and 2 x 500 KV Lines **?**

97. If the existing generation output from the Bruce, expressed in MW/h is 5,060 as stated by the OPA, what is the exact amount of power delivered, in the aggregate, expressed in MW/h, as it joins the Ontario Grid at the ends of the 5 existing Transmission Lines from the Bruce ?

98. Should the final siting of the Towers to be constructed for the proposed 500 KV Transmission Line in this Application (and for which leave may be granted by the OEB), require that the transmission corridor cross over the existing 500 KV line as built in the late 1970's from Bruce to Colbeck to Milton ?,
(A) is there an existing design template for such a turning tower, both at the initiation of the cross-over and at the end of the cross-over ?,
(B) how high and wide is the tower ?,
(C) how much measured distance must the crossing power lines stay removed and above the existing 500 KV Transmission Line being crossed ?, and
(D) what is the estimated cost of construction of each such type crossing-turning tower.

99. Would the installation of the crossing lines overtop of the existing 500 KV Line require the complete stoppage of transmission of all power through the existing line during the construction of such crossing lines ?

100. Is there sufficient transmission reserve capacity amongst the remaining existing 4 transmission lines to allow for the shut down of the existing 500 KV Line while such 500 KV cross-over line construction would take place ?

101 The full output of the Bruce 'A' and the Bruce 'B' Generating Stations and the Douglas Point Nuclear Generating Station were in the order of 6760 MW (4 x 890 + 4 x 750 MW as identified by the Board Staff of the OEB, plus an additional 200MW from Douglas Point GS.

A. How was Ontario Hydro able to transmit 6,750 MW of electrical from all 9 generating units within the Bruce complex and the 5 transmission lines, (three x 230KV and two x 500KV), evacuated that generation until the laying up of Bruce 'A" Unit 2 in October 1995 and Unit 1 of Bruce "A" in December of 1997) ?

B. Has the OEB Board Staff correctly determined that the full output from Bruce "A" GS and Bruce "B"GS were in the order of 6,560 MW ?

C. Did Douglas Point Nuclear Reactor generate or was it capable of generating an additional 200 MW during the time of full output from Bruce "A" GS and Bruce "B"GS ?

D. As the very same structures of the 5 transmission lines that served Ontario Hydro to transmit all of the power produced from the 9 nuclear reactors at the three GS, and formed the electrical highway, what degradation has been suffered to those 5 lines to degrade their transmission capability to 5,060 MW, a reduction of 1,700 MW ?

E. The Minister of Energy has advised the legislature that a 230KV line can transmit 1,500MW of power, and HONI has stated that a 500KV line can transmit 3,000 MW of power. Are each of these statements still correct ?

F. If so, would it be correct that 3 separate 230KV lines running from the Bruce could each transmit 1,500 MW of power for an aggregate transmission capacity of 4,500 MW, and if not why not ?

G. If so, would it be correct that 3 separate 500KV lines running from the Bruce could each transmit 3,000 MW of power for an aggregate transmission capacity of 6,000 MW, and if not why not ?

H. Would the combined original design transmission capacity for the 5 transmission lines running from the Bruce not, in the aggregate, total a 10,500 MW transmission capacity

102. When electrical power is transmitted to the Ontario Power Grid, from the Bruce, be it at Longwood, Detweiler, Milton, Orangeville, Hanover or Owen Sound, through the existing 5 Transmission Lines,
(A) is there sufficient electrical grid capacity in Ontario to ensure that once such electrical power is received in the grid, that everyone in the grid has access thereto including the GTA ?, and
(B) in the absence of directness of power transmission towards a particular destination, say the GTA, is there any significant diminishment of electrical power received in such direct destination, if the destination is otherwise well connected to the Ontario Electrical Grid ?

103. Are there 'in ground' wiring conduits that are proposed to run from tower to tower in the proposed new 500 KV Transmission Line to provide grounding, and if so please describe the size of the conduit, the technical purpose of its installation, the depth at which it is placed and the number of conduits placed in the ground.

104. In the late 1970's when the first 500 KV line was erected that construction location and line siting was placed immediately beside the first 230 KV line that deviated off the "Transmission corridor" and followed the 'Hanover Dip' of the first 230 KV Line in the 1960"s which took power to the Hanover TS. What electrical or other technical reason was there in the late 1970's to construct the first 500 KV Transmission Line following that deviation into the urban future settlement area of the Town of Hanover ?

105. What electrical or other technical reason exists presently to construct the proposed 500 KV Transmission Line following that previous two deviation transmission lines into the urban future settlement area of the Town of Hanover ?

106. Other than a net difference in land costs saved by HONI and the consumer ratepayers of Ontario by staying in a rural designation within a rural area, rather than crossing urban growth lands of Hanover, how much distance would be saved and how much monies would also be saved by HONI and by the consumer ratepayers of Ontario from a construction point of view if a straight line transmission construction were to take place

to the north of and between existing 500 KV Tower NO. 187 and 500 KV Tower No. 229 ?

C. TRANSMISSION OF POWER FROM RENEWABLE WIND FARM GENERATION

THE FOLLOWING INTERROGATORY, (Nos. 107) is made in respect to each of Issue 1.2,

C.1 **Ref:** Exh B / Tab 6 / Schedule 5 / Appendix 9

Preamble: In this Exhibit being a letter from the Minister of Energy dated November 16, 2005 the Minister identified 4 renewable wind farm power generation projects in the Bruce/Huron area, namely:

	Supplier:	Project	Location
1.	Enbridge Ontario Wind Power LLP Or Leader Wind Corp	Leader Wind Power Project A -100.65 MW	Bruce County etc.
2.	Enbridge Ontario Wind Power LLP Or Leader Wind Corp	Leader Wind Power Project B -99 MW	Bruce County etc.
3.	EPCOR Power Development (Ontario) LLP	Kingsbridge II Wind Power	Huron County
4.	Suncor Energy Products Inc, & EHN Windpower Canada Inc.	Ripley Wind Power	Huron County

107. As to wind generation please provide the following answers to the following technical interrogatories:

A. Are there presently any wind farms in Bruce and Huron Counties that are generating electrical power that is being presently received into the Ontario Power Grid by means other than by connection to the Bruce Power Facility ?

B. If Bruce Power owns all of the facilities within its compound, is there a technical and/or contractual requirement for Bruce Power to provide 'receiving' electrical facilitation equipment and transformer capacity for any electrical power generated by third parties outside of its compound, so that such 'received' power would be delivered down and along any of the 5 existing, (and potentially 6), transmission lines.

C. The Ripley Wind Power Project, as constructed, lies in excess of 50 KM from the Bruce Nuclear generation Facility owned privately by Bruce Power.

A. What and where is the existing and/or proposed contemplated technical link between the Ripley Wind Power Project generation facilities and the newly proposed 500 KV Transmission Line, in respect of the OPA states that which wind farm power generation is proposed to be transmitted over such transmission line(s) from the Bruce.
B. Is it contemplated by HONI that such generated power will be first transmitted that long distance to the Bruce to be transmitted from Bruce Power properties and facilities from such wind farm endeavours.

C. The Melancthon II Wind Project are apparently in production and harvesting electrical energy from the wind which is apparently transmitted towards the Orangeville TS where the 230 KV line from the Bruce also joins into the Ontario Grid. Will HONI provide a copy of the electrical records showing how much electrical power is received monthly in MW/h into the grid from that wind farm area, and the cost to HONI of power generation production received by HONI therefrom, and also advise as what is the measured consumption, expressed in MW/h for the same wind farms for which consumption charges are rendered by HONI for the same reporting periods.

D. What is the net generation capacity of the Melancthon II Wind Project after deducting the power consumed by the same Wind Farm over the same reporting period (s)

F. How many wind turbines presently are constructed and are operational in the Melancthon II Wind Project complex.

G In order to generate 1,740 MW/h of electrical energy by wind turbines how many wind turbines would it take to generate such sustained electrical energy.

H. How many wind turbines are now constructed in Bruce and Huron Counties proximate to the Bruce Power Facilities.

I. How many additional wind turbines are approved for construction in Bruce and Huron Counties proximate to the Bruce Power Facilities.

J. What are the locations for these existing and approved wind turbines for construction in Bruce and Huron Counties proximate to the Bruce Power Facilities, and that will be using the Bruce Power Facilities for the transmission of electrical power generated by wind turbines, and how many kilometers distant from the Bruce Power facilities are the present and proposed wind turbine tower farms to be constructed.

K Would you please identify all potential locations for the wind farms that will generate the 1,740 MW/h that the OPA has indicated will be in service by 2016 and that the Bruce transmission lines (and the new line, if approved and constructed), will serve.

I. Would you please provide a copy of the full names of all present and proposed

companies or LLPs which have been approved for the construction of wind generation facilities within Huron and Bruce counties, with full addresses, for courier delivery, phone, fax and E-Mail addresses, and contact person and title ?

108. Would Bruce Power agree that even with the completion of the construction of Bruce "C" with a generation capacity of 4,000 MW, that the combined aggregate of all power to be generated from Bruce "A", Bruce "B" and Bruce "C" at any given time have not been forecast by Bruce Power to produce in the aggregate more than 6,400 MW p/h up to January 1, 2026 ? (Figure 2 as submitted to the CNSC in December 2006/ January 2007 clearly sets this out).

109. Would Bruce Power agree that while Bruce "C" is being brought into service between 2015 and 2019 as proposed, in incremental amounts as each successive Nuclear Unit is brought into service, that during that time frame that other Nuclear Units within the Bruce Complex will be taken out of service, and if so which Units and at hat time period ?

110 Would Bruce Power agree than in the early 1980's that the combined generation capacity of Douglas Point Nuclear reactor, Bruce 'A' and Bruce "B" totalled approximately 6,760 MW p/h ?

111. Would Bruce Power agree that the existing five lines, three 230KV and two 500KV transmission lines, had in the 1980's the capacity to transmit all of the 6,760 MW p/h of power that could be then, in the aggregate, produced at the Bruce ?

112. What is the present stage of the Next Generation project for Bruce "C", as a 4,000 MW Generating Station as submitted to the CNSC and for a full EA Assessment **?**

113. If the application of OPG to the CNSC for approval of the construction of a 4,000 Nuclear Generating System as Darlington "B" within the GTA, and the CNSC does not approve the application of Bruce Power for the construction of Bruce "C" what would be the scaled forecasted time of planned in-service for each of the existing and planned units within Bruce "A" and Bruce "B", and the equivalent years in which any one of such Units might be scheduled for de-commissioning and removed from service ?

114 What evidence, studies and/or reports does Bruce Power have, or have access to, and can supply to support the allegations of the OPA that the maximum transmission capability and capacity of all existing 5 Transmission Lines running from the Bruce, being three 230KV and two 500KV transmission lines, have a maximum transmission capacity of 5,060 MW at present, in the aggregate ?

115. To what facts or theories does Bruce Power refer or take comfort therein as to the reason why the original same 5 lines could transmit up to 6,750 MW of generated power in the 1980's but has been degraded to 5,060 MW of generated power at present ?

116. Is Bruce Power required to file its daily electrical energy production capacities expressed in MW or MW p/h with any other government authority or regulatory agency, whether federal provincial or municipal, with advice as to the contact persons, addresses, phone, fax. E-mail or cell and the location of such information ?

117. Would Bruce Power please advise whether it is required to provide any information about daily electrical energy production to Ontario Power Generation ('OPG'), ether as landlord of the Bruce complex or as successor to Ontario Hydro in its generation capacity ?

119. What generation and transmission information for years past, prior to the day of takeover from OPG and HONI, would you expect that OPG and HONI would keep or would be required to keep that serve to record power generation and power transmission along the 5 existing high voltage transmission lines ?

120. To the knowledge of Bruce Power, what is your understanding of the regulations, Federal, Provincial or Municipal), as to the amount of time any electrical generator or electrical transmitter is required to keep such generation and transmission capacities ?