



VIA RESS

October 26, 2009

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319, 27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Hydro One Networks Inc. (HONI) Changes to Transmission Rates  
Supplementary Evidence: Projects D7 and D8  
Board File No. EB-2008-0272**

Pursuant to Procedural Order No. 7 dated October 20, 2009, attached please find AMPCO's final submission in the above proceeding.

Please contact me if you require additional information or have any questions.

Sincerely yours,

*ORIGINAL SIGNED*

Adam White

President  
Association of Major Power Consumers in Ontario

Copies to: Hydro One Networks Inc.  
Intervenors (email)

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Hydro One Network Inc. (Hydro One) 2009/2010 Electricity Transmission Rates  
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1 **Introduction**

2 In accordance with the Decision with Reasons in EB-2008-0272, Hydro One returned to the  
3 Board On September 4, 2009 with additional evidence in support of its request for approval  
4 of capital projects D7 and D8. The additional evidence provided was voluminous and  
5 largely technical in nature and included supporting material from the Independent  
6 Electricity System Operator (IESO) and the Ontario Power Authority (OPA).

7 AMPCO has reviewed the evidence, as well as the submission by Board staff.

8

9 **Requirement for a Business Case**

10 AMPCO notes the submission by Board Staff on this application, particularly with respect to  
11 the evidentiary obligation of Hydro One for Category 2 projects. Namely, Board filing  
12 guidelines require a quantitative cost/benefit analysis, which Hydro One has declined to  
13 provide. In addition to its filing guidelines, the Board has also provided specific and clear  
14 direction to Hydro One on this matter previously:

15 “For discretionary projects, the Board expects Hydro One to quantify the reliability and  
16 other benefits of the projects”<sup>1</sup>.

17 Board staff has also submitted that, because projects D7 and D8 are not specifically  
18 generation connection facilities, they do not fall within the immediate scope of the  
19 directives from the Minister and government objectives with respect to the connection of  
20 renewable generation, and hence ought to be justified in a manner similar to other category  
21 2 projects.

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<sup>1</sup> EB-2006-0501, Decision with Reasons, Aug 16, 2007, p. 45

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1 AMPCO concurs with Board staff's assessment in this regard. Government directives may  
2 establish specific projects as non-discretionary, especially when encouragement of such  
3 projects may be seen as falling within the Board's obligations under Schedule D of the  
4 Green Energy and Green Economy Act. At the same time, the Board's obligation to protect  
5 the interests of consumers could be undermined if such directives were interpreted so  
6 broadly as to provide justification for not meeting filing guidelines for projects outside the  
7 immediate scope of the directives.

8 Hydro One has stated four types of benefits for the D7 and D8 projects:

- 9 1. Relief of congestion/increase of capacity on the North-South tie.
- 10 2. Improved reliability for customers north of New Liskeard
- 11 3. Avoidance of generation rejection in the north, should the North-South tie  
12 become overloaded and IESO use of generation constraints prove insufficient to  
13 limit excess southbound flows.
- 14 4. Reductions in system losses.

15 All of these benefits should be susceptible to quantification. Indeed, congestion reduction  
16 and reliability improvement benefits were evaluated in project D5 (Cherrywood 500 kV  
17 unbundling)<sup>2</sup>. The value of energy loss reduction is also readily estimated. The value of  
18 avoiding generation rejection in the North may be less readily determined, since it has not  
19 happened to date<sup>3</sup>, but a statistical estimate should be possible.

20 AMPCO submits that the Board should require Hydro One to provide a quantified  
21 cost/benefit analysis for projects D7 and D8, consistent with the Board's filing guidelines  
22 and with the direction provided to Hydro One in EB-2006-0501.

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<sup>2</sup> Hydro One Application EB-2008-0272, Exhibit D1/Tab3/Sch 3/page 15, lines 9-19

<sup>3</sup> Ex I/Tab 10S/Sch 15

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1 **In-Service Dates**

2 AMPCO's concern with the absence of a cost/benefit analysis is not simply with the  
3 quantum of costs and benefits, but also whether Hydro One's proposal maximizes the  
4 present value of these projects. The latter concern is related to the planning and proposed  
5 in service dates for these projects.

6 It is accepted that, if transmission connection facilities are not in place when needed to  
7 serve a new load or generation customer, the result is likely to be a stranded customer  
8 asset. The resulting unproductive period could potentially negate the original business  
9 case for the customer's investment.

10 The converse is also true. Transmission assets that are put in place before they are used  
11 and useful are also stranded assets, since the lack of useful work (e.g., managing an  
12 increase in energy supply or demand) while they await the completion of the customer  
13 project can negate the business case that provided their original justification.

14 AMPCO is concerned that Hydro One is proposing to complete these projects and place  
15 them in service significantly before they will become used and useful, creating a premature  
16 and unnecessary burden on ratepayers.

17 Concern with allowing these projects to be placed in service early comes from an  
18 examination of the evidence provided by Hydro One and indirectly by the OPA.

19 Hydro One's evidence is summarized in its response to Board Staff interrogatory # 92  
20 where reference is made to 517 MW of hydroelectric generation procured under the  
21 Minister's Hydroelectric Energy Supply Agreements (HESA) directive and some 762 MW of  
22 renewable generation projects that are in service now or committed.<sup>4</sup> Hydro one

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<sup>4</sup> Exhibit I/Tab1S/Sch 92/Page 2-3

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1 continues, stating: “Over 1250 MW of **new** renewable resources would cause southbound  
2 flows on the North South Interface to greatly exceed its present operating capability of  
3 1400MW”<sup>5</sup> (emphasis added).

4 The lists of these two project groups are provided in Hydro One’s evidence and are  
5 reproduced here for convenience<sup>6</sup>:

**Table 1**  
**Capacity and Expected In-Service Date of HESA Facilities as of May 2008**

Site	Capacity (MW)	Expected In-Service Date
Lac Seul	12	2008
Hound Chute	10	2009
Upper Mattagami	35	2009-2010
Lower Mattagami	450	2011-2013

Source: OPA

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<sup>5</sup> Ibid, page 3

<sup>6</sup> Exhibit C/Tab 1/Schedule 1

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**Table 4**  
**Committed and Other Near-Term Generation**  
**Projects in Northern Ontario as of Today**

Site	Type	Capacity (MW)
<b>In-Service and Committed Resources (Note 2)</b>		
RES I Umbata Falls	Hydro	23
CHP Algoma	Gas	63
In-Service RESOP	Various	5
Committed RESOP	Various	177
RES II Island Falls	Hydro	20
Biomass northwest	Biomass	(Note 1)
RES III Greenwich Windfarm	Wind	99
<b>Total Committed</b>		<b>387</b>
<b>Other Resources</b>		
Cameron Falls	Hydro	4
Namewaminikan - 8 km & 12.8 km	Hydro	10
Alexander	Hydro	1
Mattagami Lake Dam	Hydro	6
Pine Portage	Hydro	4
Biomass Atikokan	Biomass	200
Thunder Bay Biomass	Biomass	150
<b>Total Other Resources</b>		<b>375</b>
<b>Total by 2013</b>		<b>762</b>
Source: OPA		
Note 1: This site was included separate from the RESOP potential in the May 20, 2008 letter, but has since been contracted for through RESOP and is included in the committed RESOP site in this Table.		
Note 2: Not all in-service resources are included in this Table. Only the resources that were included in May 20, 2008 letter that have since come into service are included in this Table.		

1

2 With respect to the need for projects D7 and D8, two aspects of Hydro One’s claim need to

3 be examined. The first is whether the quantity of “new” renewable resources is in fact

4 1250 MW as Hydro One claims.

5 AMPCO asked Hydro One to elaborate on Table 1, to identify both probable in-service dates

6 for the HESA projects and the actual incremental capacity that would be achieved. The

7 results are reproduced below, as Hydro One provided in its response<sup>7</sup>:

<sup>7</sup> Ex I/Tab 10S/Sch 12

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<b>Project</b>	<b>Existing (pre-project) Capacity (MW)</b>	<b>Incremental Capacity (MW)</b>	<b>Planned Capacity (MW)</b>	<b>Planned or Actual In-Service Date</b>
Lac Seul (Note 1)	0	12	12	In-Service
Hound Chute	4	6	10	2010
Upper Mattagami	19	16	35	2010
<b>Sub-Total</b>	<b>23</b>	<b>34</b>	<b>57</b>	
Lower Mattagami	486	450	936	2014
<b>Total</b>	<b>509</b>	<b>484</b>	<b>993</b>	

Note 1: Lac Seul Generation Station is adjacent to Ear Falls Generation Station. The capacity of Lac Seul is incremental to the capacity of Ear Falls.

1

2 The total incremental capacity for the HESA projects is 484 MW, not 517 MW as claimed in  
3 Hydro One in its response to Board Staff interrogatory #92.

4 Of the 484 MW of incremental HESA capacity, 450 MW or slightly less than 93% are  
5 contributed by the Lower Mattagami project, which is not scheduled to be placed in service  
6 until 2014.

7 In its evidence, Hydro One has stated that the Lower Mattagami project may be restricted if  
8 the SVCs at Kirkland Lake TS are not in place<sup>8</sup>. However, since the Lower Mattagami  
9 project will not be in service until 2014, this condition cannot exist until that time.

10 There are similar issues with the projects listed in Table 4.

11 Of the 762 MW of projects listed, 350 MW or approximately 46% of the listed capacity is for  
12 generation from burning biomass fuels at Atikokan GS and Thunder Bay GS. Ontario Power

<sup>8</sup> Supplement to EB-2008-0272, Ex B/Tab 1/Sch 1/Page 3, lines 7-13

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1 Generation (OPG) has set in-service dates for these projects for 2012<sup>9</sup>, which means they  
2 will not affect North-South flows before then.

3 Moreover, the biomass projects do not add net generation in Northern Ontario. They  
4 simply reduce the amount of generation capacity that will be lost at Atikokan GS and  
5 Thunder Bay GS when these stations no longer burn coal. These units were rated for a total  
6 of approximately 200 MW (Atikokan) + 306 MW (Thunder Bay) = 506 MW prior to coal  
7 phase-out. Hydro One argues that, since coal phase-out would have reduced output from  
8 these units to zero, the replacement of coal with biomass constitutes an increment in  
9 planned generation<sup>10</sup>. This may be true from the perspective of a planner dealing with  
10 shifting project plans, but it remains true that these plants will together produce less  
11 output after conversion than before.

12 After biomass conversions of coal plants, the next largest discrete project listed in Table 4  
13 is the Greenwich Wind Farm at 99 MW. When in service, this wind farm will have a  
14 maximum output of 99 MW. However, the schedule for in-service is 4<sup>th</sup> quarter of 2011<sup>11</sup>,  
15 which means it can have no impact on North-South flows before then.

16

### 17 **Reliability Considerations**

18 While it is not a core driver for Project D7, Hydro One and the OPA have noted that, absent  
19 the SVCs at Porcupine and Kirkland Lake, reliability for customers north of New Liskeard

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<sup>9</sup> <http://www.opg.com/power/fossil/biomass.asp>

<sup>10</sup> Ex I/Tab 1S/Sch 96

<sup>11</sup> Ex I/Tab 6S/Sch 73/ para a) of response

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1 would be impacted whenever there is a single circuit contingency on the 500 kV line from  
2 Porcupine TS to Hamner TS<sup>12</sup>.

3 This situation has been in place for several years now, and the customers of concern have  
4 had their part of the system “islanded” three times over the 1995-2008 period<sup>13</sup>. It was not  
5 clear from the evidence or interrogatory responses that the islanding events resulted in  
6 actual loss of service. While this may be a significant amount of unreliability to attribute to  
7 problems on the transmission grid, it is a relatively modest contribution compared to  
8 customer unreliability from other causes, especially the distribution system. In its  
9 evidence in EB-2009-0096, Hydro One identified its current system average interruption  
10 frequency index (SAIFI) for all causes to be approximately 4 outages per year, or  $4 \times 14 =$   
11 56 over a 14 year period, equal to that for the 3 islanding events. Loss of supply events  
12 across the entire Hydro One distribution system account for about 6 % of SAIFI, consistent  
13 with the historical frequency of islanding in this area.<sup>14</sup>

14 In sum, the reliability concerns with respect to a 500 kV contingency north of Sudbury are  
15 not urgent, at least until the Lower Mattagami project is in service in 2014.

16

## 17 **Summary**

18 The evidence that has been provided by Hydro One in support of projects D7 and D8 does  
19 not meet the Board’s filing guidelines for category 2 capital projects. On this basis, the  
20 Board should not approve these projects at this time.

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<sup>12</sup> Supplemental to EB-2008-0272, Ex B1/ Tab1/ Sch 1/ Page 2, line 27 to page 3, line 5

<sup>13</sup> Ex I/ Tab 6S/ Sch 71

<sup>14</sup> Hydro One Application EB-2009-0096, Ex A/Tab 4/Sch 1, pages 18-20

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1 In AMPCO's view, the larger issue that needs to be addressed in this application is the  
2 degree to which a government directive can support an argument to categorize projects  
3 related to the directed project as non-discretionary and therefore less susceptible to Board  
4 review. AMPCO respectfully submits that customers and Ontario as a whole will be best  
5 served if the Board adopts a strict and narrow interpretation of government directives and  
6 thus requires all applications for projects that are not specifically covered by such  
7 directives to meet the Board's filing guidelines.

8 The consequences of not approving these projects for placement in service in 2010 will be  
9 minimal, as the large majority of the incremental generation capacity that has been stated  
10 as justification for these projects will not enter service until the period Q4 2011- 2014.

11

12 **Relief Sought**

13 AMPCO requests that the Board not approve projects D7 and D8 for placement in service  
14 and rate base for 2010 and direct Hydro One to re-apply for approval of these projects in its  
15 next rate application in accordance with Board filing guidelines for category 2 projects,  
16 should it continue to believe they are needed.

17

18 **Costs**

19 AMPCO submits that it participated responsibly in this proceeding. AMPCO respectfully  
20 requests that it be awarded 100% of its reasonably incurred costs of participating in this  
21 proceeding.

22 ALL OF WHICH IS RESPECTFULLY submitted this 26<sup>th</sup> October, 2009.