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VIA E-MAIL

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November 21, 2008

BC HYDRO – 2008 LTAP
EXHIBIT A-8

Mr. Mark S. Oulton
Hunter Litigation Chambers
2100 – 1040 West Georgia Street
Vancouver, BC V6E 4H1

Dear Mr. Oulton:

Re: British Columbia Hydro and Power Authority
Project No. 3698514/ Order G-96-08
2008 Long Term Acquisition Plan ("2008 LTAP")

Further to your November 14, 2008 filing of the written evidence on behalf of COPE 378 for the 2008 LTAP proceeding, enclosed is Commission Information Request No. 1.

Pursuant to the Regulatory Timetable set out in Commission Order G-126-08, please reply to the Commission with an electronic copy and 20 hard copies of your response by Thursday, December 18, 2008.

Yours truly,

Original signed by:

Erica M. Hamilton

EC/rt
Enclosure

REQUESTOR NAME: British Columbia Utilities Commission

INFORMATION REQUEST ROUND NO: 1

TO: COPE 378

DATE: November 21, 2008

PROJECT NO: 3698514

APPLICATION NAME: British Columbia Hydro and Power Authority ("BC Hydro")
2008 Long Term Acquisition Plan ("2008 LTAP")
Intervenor Evidence from COPE 378

**1.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 1, p. 1
General**

Dr. Shaffer states that he undertook a review of BC Hydro related provision in the Energy Plan. The review is presented in a series of papers contained in the report, Lost in Transmission.

1.1 Please describe the purposes of the review, for whom the review was carried out, and who sponsored the review.

1.2 Please provide a copy of the report in your response.

**2.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 2, pp. 1, 2
Self-sufficiency**

Dr. Shaffer states that "self-sufficiency as defined in the Energy Plan and subsequent legislation is not needed to ensure a reliable source of electrical supply" and "self-sufficiency is fundamentally a market call".

Policy Action #10 in the 2007 Energy Plan states that "The British Columbia Utilities Commission will continue to have responsibilities for regulating BC Hydro, within the context of the self-sufficiency requirement" (Exhibit B-1-1, Appendix B1, p. 52 of 84).

2.1 Does Dr. Shaffer agree with BC Hydro's treatment of 'self-sufficiency' as a minimum constraint in the 2008 LTAP (Exhibit B-3, BCUC IR 1.2.1)?

2.1.1 If not, please discuss in your view how 'self-sufficiency' as stated in Policy Action 10 of the Energy Plan should be treated in the regulatory review of BC Hydro's long term resource requirements.

2.1.2 If yes, please explain the purpose of Dr. Shaffer's evidence in the regulatory review of BC Hydro's long term resource requirements.

2.2 Dr. Shaffer states that BC Hydro has concluded that self sufficiency will result in more disturbance of land and aquatic habitat, and more local air emissions. Dr. Shaffer provides as reference footnote 4 which is a reference to the BC Hydro 2006 IEP Table 6-4, p. 6-19. Please explain how that referenced table justifies Dr. Shaffer's assertion regarding environmental impact.

2.2.1 Dr. Shaffer states that BC Hydro's system simulations consistently indicate that the acquisition of domestic supplies as required for self-sufficiency will add hundreds of

millions of dollars to the present value of its long term system cost. Is there any information in the 2008 LTAP, as opposed to the 2006 IEP, that would indicate that such a conclusion remains valid or has not changed materially? Please provide specific examples and references to the simulations Dr. Shaffer believes illustrate this.

- 2.2.2 Table 6-4 of the 2006 IEP contains the PV of 17 different resource portfolios. To which portfolio is Dr. Shaffer referring, and is the hundreds of millions of dollars relative to some particular portfolio or to the average of all portfolios? Please describe the components of the portfolio to which Dr. Shaffer is referring. How many portfolios were more expensive than this portfolio?
- 2.3 In Dr. Shaffer's view is self-sufficiency synonymous with long-term contracts and fixed prices? Are there other realistic contracting and pricing arrangements for domestic supply that may meet self-sufficiency requirements?

**3.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 2, p. 3
Pricing Policy**

Dr. Shaffer states that the historical average cost based rates will attract new electricity intensive loads and will exacerbate the inefficient development of new sources of electricity supply caused by the requirement for self-sufficiency.

With the 2007 Energy Plan the B.C. government confirms the Heritage Contract in perpetuity to ensure ratepayers will continue to receive the benefits of low-cost electricity (Exhibit B-1-1, Appendix B1, p. 55 of 84 Policy Action #16).

- 3.1 Please explain the purpose of Dr. Shaffer's evidence in the regulatory review of how well BC Hydro has responded to the Energy Plan in the 2008 LTAP.

4.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 2, p. 3

Dr. Shaffer states that it is not at all clear what the special reference to these resources (i.e., run-of-river and wind) in the Energy Plan and the restriction on BC Hydro's own development of energy resources was intended to do.

- 4.1 Does Dr. Shaffer have any reservations with the results from the ROU on the supply side options in the 2008 LTAP, for example, on the criteria BC Hydro used for screening and methodology used for updates on cost and potential availability? If so, please explain.

5.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 4, p. 4

Dr. Shaffer states that "One way to mitigate the cost of self-sufficiency is to retain the full energy capability of the Burrard Thermal plant. Among the many advantages of the Burrard plant is that it enables BC Hydro to take advantage of non-firm and spot market energy supplies without being reliant upon them. That advantage is diminished in BC Hydro's LTAP because of the downgrading of the firm energy capability of Burrard that it proposes."

- 5.1 In Dr. Shaffer's view, does the BC Hydro proposal for Burrard's energy capability align with Policy Action No. 22 of the 2007 Energy Plan which stated the provincial government's desire to see

Burrard Thermal phased out (Exhibit B-4, BCUC IR 2.215.2)?

6.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 4, p. 5

Dr. Shaffer states that “The proposed downgrading of the Burrard Thermal plant exacerbates the adverse impact of the Province’s requirement for self-sufficiency because it further limits BC Hydro’s opportunistic use or purchases of non-firm and spot market supplies of energy. BC Hydro’s system simulations suggest that this will increase its present value system costs by some \$650 million.”

- 6.1 In Dr. Shaffer’s view, if actual operation of Burrard is lower than specified level of firm reliance on Burrard because of displacement by external market purchases or non-firm Heritage hydro, is it tantamount to reliance on external markets and non-firm Heritage hydro?
- 6.2 Please confirm that the figure of “some \$650 million” is \$660 million and was derived from the amended Table 5-8 (Exhibit B-3, BCUC IR 1.102.1) and is the difference in the weighted present value of the Burrard at 6000 GWh and at 3000 GWh annual firm energy capability scenarios.
 - 6.2.1 What is Dr. Shaffer’s understanding of the actual BGS generation in each of these scenarios as contained in Table 5-8?

7.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 4, p. 5, Footnote 9

Dr. Shaffer states that even if the firm energy capability of Burrard is downgraded for planning purposes, actual operation could presumably exceed the level assumed for planning if advantageous to do so for market reasons.

- 7.1 Please discuss in more detail how operation might exceed the level established for planning purposes. Do you foresee any other constraints on operation that may come into force if BC Hydro reduces firm energy reliance to 3000 GWh/year? (E.g., Burrard’s air quality permit)

8.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 4, p. 6

- 8.1 Based on the response to COPE IR 2.5.2 Dr. Shaffer states that a deferral of the Clean Call would reduce costs by \$100 million. In that IR response BC Hydro states that a two year deferral would be a high risk proposition in terms of being able to meet new supply deliveries by January 1, 2016 as required by SD 10. Does Dr. Shaffer agree with this proposition and does he consider that the current economic climate serves to heighten or mitigate this risk?
- 8.2 Footnote 11 references Table 6-15 on page 6-64 appears to be a wrong reference. Please provide the correct reference.

9.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 6, p. 7

Dr. Shaffer suggests the LTAP does not recognize the problem with run-of-river and wind resources. Specifically, he argues BC Hydro does not recognize the very significant value difference between dispatchable and non-dispatchable resources. He refers to BC Hydro’s response to JIESC 1.11.2

- 9.1 Please explain in more detail what is meant by the statement: “They will not, for example, take into account impacts on unique import or sale opportunities that regularly arise but aren’t

reflected in average price adjustment factors.” Please provide examples of the kinds of unique and regular opportunities that may arise and the methods these types of unique factors can and should be taken account of in a long-term resource plan.

- 9.2 In response to JIESC 1.11.2, BC Hydro notes: “The impact of adding new resources to the system, including the value of dispatchability differences, was undertaken through portfolio analysis where the overall system expansion and production costs were studied. For example, wind and small hydro projects are modelled as must-run resources in the portfolio analysis. This means their operation cannot be ramped up or down either to capture market price opportunities or to follow system load changes. Both natural gas and large hydro projects are modelled as dispatchable resources within operating constraints.” Please explain in greater detail, with examples if possible, why BC Hydro’s modeling approach will not capture the value difference between dispatchable and non-dispatchable resources when comparing two alternative portfolios, one with only non-dispatchable resources and the other with only dispatchable resources.
- 9.3 How exactly does Dr. Shaffer propose the value of system flexibility be explicitly modeled and incorporated relative to what BC Hydro currently does?

10.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 5, p. 7

Dr. Shaffer argues BC Hydro’s low average rates is a major problem for BC Hydro and its existing customers because it will attract new electric intensive loads.

- 10.1 Please provide any evidence this has been a problem and the magnitude of this problem referring specifically to recent trends in industrial loads over the past decade and current industrial loads within the province.
- 10.2 Please discuss why the attraction of electricity-intensive loads is not in the interests of labour in B.C.
- 10.3 Please provide reference to policy, legislation and regulations in B.C. that might require, encourage or enable the Commission to consider the impacts of new industrial customers on existing customers in its decision. Please explain how and why a public interest test may be limited to existing customers.
- 10.4 Please discuss whether the plan to extend the grid into Northwestern B.C. is driven by government policy and, if so, whether the Commission has a role in determining whether that policy is in the public interest.
- 10.5 Please provide examples of other jurisdictions that require regulatory approval new loads above some threshold.

11.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 7, p. 8

- 11.1 Does Dr. Shaffer believe that the Commission has the jurisdiction under the *UCA* to order the deferral of the Clean Call for at least two years?

12.0 Reference: Exhibit C16-6, Direct Testimony of Dr. Marvin Shaffer, Section 7, p. 8

Dr. Shaffer recommends that BC Hydro be directed to develop strategies that address the impact of low average rates attracting new industrial load, for example by proposing to seek BCUC approval of major new loads above some threshold amount based on an assessment and justification of the impacts on existing customers, etc.

12.1 Is Dr. Shaffer aware of BC Hydro's obligation to serve new customers within its service area who meet the terms and conditions of the BC Hydro Electric Tariff (Exhibit B-1-10, Appendix N1, p. 13 of 166)?

12.1.1 Please reconcile Recommendation #3 in the Evidence with BC Hydro's obligation to serve.

12.2 Does Dr. Shaffer agree that any recommendation to charge new industrial customers a rate not based on embedded costs will effectively deny them the same proportions of heritage power as existing customers. Does Dr. Schaffer believe such treatment is consistent with the Heritage Contract?