



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

September 13, 2010

Barry E. Welch, Chief Executive Officer
Atlantic Power Corporation.
200 Clarendon Street, Floor 25
Boston, MA 02116

**Re: Atlantic Power Corporation
Registration Statement on Form S-1
Filed August 16, 2010
Amendment No. 1 to Registration Statement on Form S-1
Filed August 20, 2010
File No. 333-168855
Registration Statement on Form S-1
Filed August 16, 2010
Amendment No. 1 to Registration Statement on Form S-1
Filed August 20, 2010
File No. 333-168856**

Dear Mr. Welch:

We have reviewed your registration statements and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statements and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statements and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-1, File No. 333-168855

1. Please tell us your consideration of disclosing pro forma information reflecting the separate impacts of a) the use of common stock offering proceeds to repay debt; and b) the new convertible debt financing. Refer to Article 11 of Regulation S-X.

Prospectus Cover Page

2. Please remove the phrase “Sole Book-Running Manager” from the cover of your prospectus.
3. We note that you have not provided your pricing information. We may have additional comments when you provide this information.

Table of Contents, page i

4. Please amend the last the last sentence of the penultimate paragraph to note that the information will always be materially accurate at the time the prospectus is delivered or the securities sold, or delete it.

Prospectus Summary, page 1

5. Please revise your prospectus to avoid using parenthetical definitions that use abbreviations for terms; such as “PPAs”, “TSRs” and “EWGs.” Where there is a risk of misunderstanding, the term should be clarified in context.

Our Competitive Strengths, page 2

6. If you choose to highlight your company’s strengths in the summary, please balance that disclosure with a discussion of the principal challenges or risks facing the company. Please also ensure that this disclosure represents a summary of your strengths, as the disclosure appears to be identical to the disclosure that appears on pages 72-73.

Summary Historical Financial Information, page 9

7. It appears there may be a computational or typographical error in the Cdn\$ diluted earnings per share amounts for the year ended December 31, 2008 that are shown here and on page 32 since diluted earnings per share cannot be greater than basic earnings per share. Please revise your presentation to address this issue. Please also revise to provide a footnote to the tables reconciling how diluted earnings per share in US\$ and Cdn\$ were computed. Refer also to the similar comment included below regarding the diluted income per share amount shown on your quarterly statements of operations for the three months ended June 30, 2010 on page F-40.

Risk Factors, page 10

8. We refer you to your risk factor entitled “Financing arrangements could negatively impact [y]our business.” In light of the concurrent debt offering, please

revise this risk factor to quantify the amount of debt you have outstanding that is discussed in this risk factor, with a view to providing investors with additional information as to why such arrangements could negatively impact your business.

Cautionary Statement Regarding Forward-Looking Statements, page 24

9. We note your reference to the Private Securities Litigation Reform Act. Section 27A(b)(2)(D) of the Securities Act of 1933 and Section 21E(b)(2)(D) of the Securities Exchange Act of 1934 expressly states that the safe harbor for forward looking statements does not apply to statements made with respect to the business or operation of an issuer if the offering is the issuer's initial public offering. Please delete references to the Litigation Reform Act. Please remove this language.

Use of Proceeds, page 27

10. Disclose how you will prioritize your use of proceeds if the concurrent offering of convertible debentures is not successfully completed.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 33

Recent Accounting Pronouncements, page 64

11. Please update your disclosures regarding the consolidation guidance applied to variable interest entities and the amendments to the fair value measurements and disclosures topic of the codification to reflect that you adopted these pronouncements in fiscal 2010.

Where you can find more information, page 136

12. Your last sentence in this section indication that you have filed a separate registration statement to register the offer and sale of common shares. We presume that you mean to refer to the offering of debt here.

Financial Statements, page F-1

13. Please prominently mark all unaudited financial statements of equity method investees as unaudited. To the extent unaudited periods are presented alongside audited periods, please be sure to label the respective columns and footnote amounts accordingly.

Atlantic Power Corp. Quarterly Financial Statements, page F-39

Consolidated Statements of Operations, page F-40

14. Similar to the comment above on Summary Historical Financial Information, it appears there may be a computational or typographical error in the diluted income per share amount that is shown for the three months ended June 30, 2010, since diluted income per share cannot be greater than basic income per share. Please revise your presentation to address this issue. Please also revise your footnote disclosures regarding earnings per share to include a reconciliation of both the numerators and denominators of the basic and diluted per-share computations. In this regard, we assume the dilutive effect of the assumed conversion of convertible debentures impacts both the numerator and denominator of the per-share computations. Refer to ASC 260.

Notes to Consolidated Financial Statements, page F-42

15. Please explain why you have not provided summarized income statement information for each unconsolidated subsidiary or group of unconsolidated subsidiaries for which separate or group statements are otherwise required for annual periods. Refer to Rule 10-01(b)(1) of Regulation S-X.

Note 9. Income Taxes, page F-55

16. Please refer to ASC 740-270-50-1 and disclose with more specificity the reasons for significant variations in your effective tax rate between periods. Your disclosure that the difference between the effective and statutory rate for the periods presented is primarily due to an increase in the valuation allowance and various other permanent differences seems to warrant further elaboration given that the increase in the valuation allowance appears to make up only a small part of the total differences between the effective and statutory rates. We believe comparative analysis of income tax expense (benefit) and the effective tax rate for the periods presented should also be provided in Management's Discussion and Analysis of Financial Condition and Results of Operations.

Item 17. Undertakings, page II-4

17. Notwithstanding the fact that your offering is not a delayed or continuous one, you are still required to provide the undertakings located at Item 512(a)(6) of Regulation S-K because this offering constitutes an initial distribution of securities. Please revise.

Exhibit 5.1

18. We note the disclosure in counsel's legal opinion that counsel disclaims any obligation "to advise you of any change after the date hereof in or affecting any matter set forth [t]herein." Please have counsel revise the opinion to state that they have no obligation to update the opinion as of the date of effectiveness, or have counsel re-file the opinion on the date of effectiveness. This comment also applies to Exhibit 5.1 to the registration statement on Form S-1, file no. 333-168856.
19. We note that the legal opinion indicates that it relates only to the province of Ontario and the federal laws of Canada. Counsel must opine under the laws of the jurisdiction of incorporation or organization of the registrant or, in this case, British Columbia. Please provide an opinion of counsel that renders an opinion under British Columbia law. Note that we will accept an opinion of counsel that is rendered for a jurisdiction in which counsel is not admitted to practice as long as the opinion is not otherwise qualified as to jurisdiction. This comment also applies to Exhibit 5.1 to the registration statement on Form S-1, file no. 333-168856 with respect to the shares of common stock that are covered by the registration statement.

Registration Statement on Form S-1, File No. 333-168856

20. Please address the applicable comments above in this filing.
21. Please file the first supplemental indenture in the registration statement before effectiveness.
22. Material terms of the debentures have not been provided. We may have additional comments when you provide this information.

Prospectus Cover Page

23. Please disclose the current amount of debt that ranks equal with our senior to the debentures and, if true, that you expect to incur additional debt in the future. Please make a similar disclosure in your prospectus summary under the subtitle "The Debentures" on page 6.

Ratio of Earnings to Fixed Charges, page 30

24. Please revise your disclosure to clarify how income or loss from equity investees and distributed income of equity investees are considered in the calculation of earnings in the numerator of the earnings to fixed charges ratios. Refer to Item 503(d) of Regulation S-K.

Description of Debentures, page 123

25. We note that in connection with your ability to deliver common shares to satisfy your obligation to repay principal under the debentures and in connection with the make whole premium upon a change of control you reference that such actions are subject to regulatory approval. In each case please explain the necessary regulatory approval.

Conversion Privilege, page 124

26. We note your risk factor on page 23, "The Debentures may become convertible into other securities, cash or property following certain transactions." We note in your description here of the events that would trigger a conversion and those that would require an adjustment of the conversion rights. Please describe in greater detail how the debentures would be converted into property or other securities.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statements please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statements as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the

Barry E. Welch
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above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statements.

Please contact Adam Phippen, Staff Accountant at (202) 551-3336 or Robyn Manuel, Staff Accountant, at (202) 551-3823 if you have any questions regarding comments on the financial statements and related matters. Please contact Scott Anderegg, Attorney, at (202) 551-3342, Mara Ransom, Legal Branch Chief, at (202) 551-3264 or me at (202) 551-3720 with any other questions.

Sincerely,

H. Christopher Owings
Assistant Director