



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

DIVISION OF
CORPORATION FINANCE

October 4, 2010

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

**Re: Atlantic Power Corporation
Amendment No. 2 to Registration Statement on Form S-1
Filed September 17, 2010
File No. 333-168855
Amendment No. 2 to Registration Statement on Form S-1
Filed September 27, 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

Financial Statements, page F-1

Atlantic Power Corp. Annual Financial Statements, page F-1

Consolidated Statements of Operations, page F-4

1. We reviewed your responses to comments seven and 14 in our letter dated September 13, 2010. Please revise your annual and interim footnote disclosures to include a reconciliation of the numerators and denominators of the basic and

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diluted per-share computations. Refer to FASB ASC 260-10-50-1 and 260-10-55-52. We are particularly interested to see the reconciliation as it relates to the year ended December 31, 2008 as the current disclosure is unclear in terms of how the numerator is adjusted for interest charges applicable to the convertible debt.

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

Notes to Consolidated Financial Statements, page F-42

2. We reviewed your response to comment 15 in our letter dated September 13, 2010. We believe you should evaluate whether disclosures are required in the interim period based on the equity investees' significance to the year-to-date interim period, in lieu of evaluating significance based on the most recently completed fiscal year. Thus please reconsider the need for summarized interim income statement information for each unconsolidated subsidiary or group of unconsolidated subsidiaries. Refer to Rule 10-01(b)(1) of Regulation S-X.

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

3. Please address the applicable comments above in this filing.

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