



DIVISION OF
CORPORATION FINANCE

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

September 9, 2011

Via E-mail

Kevin D. Struzeski
Chief Financial Officer
Carbon Natural Gas Company
1700 Broadway, Suite 2020
Denver, Colorado 80290

**Re: Carbon Natural Gas Company
Registration Statement on Form S-1
Filed August 12, 2011
File No. 333-176287**

Dear Mr. Struzeski:

We have reviewed your registration statement 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 statement 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 statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please provide complete responses, and where disclosure has changed, indicate precisely where in the marked version of the amendment we will find your responsive changes. To the extent comments on one section apply to similar disclosure elsewhere, please make corresponding revisions to all affected areas. This will minimize the need for us to repeat similar comments. Further, please provide updated disclosure with each amendment. For example, and without limitation, please provide updated financial statements and related disclosure.

Risk Factors, page 5

The estimates of our proved developed..., page 8

2. Please specify the reserves estimates that were not audited.

We may suffer losses or incur liability for events..., page 12

3. In light of the public concern over the risks relating to hydraulic fracturing, please review your disclosure to ensure that you have disclosed all material information regarding your potential liability. This would include, for example, your potential liability in connection with any environmental contamination related to hydraulic fracturing operations in which you or your business partners are involved. For example, and without limitation, please address the following with respect to your hydraulic fracturing operations:
- disclose the applicable policy limits and deductibles related to your insurance coverage;
 - disclose your related indemnification obligations and those of the third parties who use your products or services when performing hydraulic fracturing operations, if applicable;
 - clarify your insurance coverage with respect to any liability related to any resulting negative environmental effects; and
 - provide further detail on the risks for which you are insured for your customers' hydraulic fracturing operations.
4. In this regard, discuss what remediation plans or procedures are in place to deal with the environmental impact that would occur in the event of a spill or leak from the hydraulic fracturing operations in which you or your customers are involved.

Federal and state legislation and regulatory initiatives relating to hydraulic fracturing..., page 14

5. Please discuss more fully your use of hydraulic fracturing, identifying the locations where it currently is used. Please tell us, with a view toward disclosure:
- your acreage subject to hydraulic fracturing;
 - the percentage of your reserves subject to hydraulic fracturing;
 - the anticipated costs and funding associated with hydraulic fracturing activities; and

- whether there have been any incidents, citations, or suits related to your hydraulic fracturing operations for environmental concerns, and if so, what your response has been.

Our senior management and administrative staff also provide services to Nytis Exploration Company...., page 16

6. Please disclose the amount of time that each of Messrs. McDonald and Struzeski intend to spend on the business of Carbon Natural Gas.

Reserves, page 34

7. We note that your proved undeveloped reserves increased from 20,537 MMcfe in 2009 to 37,620 MMcfe in 2010. Item 1203(b) of Regulation S-K requires the disclosure of material changes in proved undeveloped reserves that occurred during the year including – but not limited to – conversion into proved developed reserves. Please expand this discussion to present figures for material changes to PUD reserves due to each of the following: revisions, improved recovery, acquisitions / divestitures and extensions / discoveries.

Environmental, page 37

8. With regard to your use of hydraulic fracturing, please also tell us what steps you, or the third-party contractors you hire, have taken to minimize any potential environmental impact. For example, and without limitation, please explain if you:
- have steps in place to ensure that your drilling, casing, and cementing adhere to known best practices;
 - monitor the rate and pressure of the fracturing treatment in real time for any abrupt change in rate or pressure;
 - evaluate the environmental impact of additives to the hydraulic fracturing fluid; and
 - minimize the use of water and/or dispose of it in a way that minimizes the impact to nearby surface water.
9. Please supplementally provide us with a report detailing all chemicals used in your hydraulic fracturing fluid formulations/mixtures, in the volumes/concentrations and total amounts utilized, for representative wells in each of the major resource plays in which you operate.

Marketing and Delivery Commitments, page 42

10. Describe your long-term firm transportation contracts in further detail. Quantify and explain the financial obligations related to these contracts.

Off-balance Sheet Arrangements, page 59

11. You indicate here that you enter into contractual agreements including derivative contracts that may not be reflected on your balance sheet. Please tell us the terms of any derivative contracts not reflected on your balance sheet and the technical accounting guidance that supports your accounting treatment.

Related Transactions, page 73

12. Please identify the members of the "Pricing Committee."

Director Independence, page 73

13. You state that the Board uses the definition of independent as set forth in Rule 5605(a)(2) of the Nasdaq Listing Rules. You further explain that the Board considers all relevant facts and circumstances in its determination of independence. In the context of these standards and the Board's recent authorization of additional shares to permit the conversion of preferred shares held by Yorktown IX, please explain why you believe Messrs. Lawrence and Leidel are independent directors despite their control of a majority of your voting capital stock.

Note 1. Nature of Operations and Significant Accounting Policies

Principles of Consolidation, page F-8

14. We note your interest in Nytis Exploration of Pennsylvania LLC ("Nytis Pennsylvania" or "Nytis PA") was reduced from 90% to 85% effective March 2010. Additionally, Note 4 on page F-14 discloses that you sold all of your interests in the Pennsylvania assets owned by Nytis Pennsylvania with an effective date of February 1, 2010. The disclosure within these two footnotes lacks the complete disclosure found elsewhere in the filing on pages 3 and 34 which states the assets sold comprised all of the assets of Nytis PA and as a result, this subsidiary is in the process of being dissolved and its business wound up. Please revise your footnotes to clarify the current status of Nytis PA and provide consistent disclosure throughout your filing.

Note 5. Property and Equipment, page F-15

15. We note you use the full cost method of accounting for oil and gas properties. Please revise your presentation to fully comply with the disclosure requirements pursuant to Rule 4-10(c)(7) of Regulation S-X.

Consolidated Interim Financial Statements

General

16. We note your Form S-1 filed on August 12, 2011 includes unaudited interim financial statements and footnotes for the quarterly period ended March 31, 2011. Please note the financial statement updating requirements per Rules 3-01 and 3-12 of Regulation S-X. Additionally, in future amendments, information regarding results of operations for interim periods presented in your MD&A and related disclosure throughout the filing should correspond with the most current interim period for which financial statements are included in your filing.
17. Please monitor the need to provide updated auditor's consents in subsequent amendments.

Exhibits

18. Please provide us with an analysis as to whether you are required to file the employment agreements with Mr. Peirce and Nytis LLC and between Messrs. McDonald and Struzeski and Nytis Exploration Company. In your analysis, please tell us whether these agreements contemplate compensating these persons for work done for the registrant. Similarly, please tell us whether you need to file the employment agreements referenced in Note 12 to the financial statements.

Exhibits 99.1, 99.2 and 99.3

19. Obtain and file revised reports that address all requirements of Regulation S-K, Item 1202(a)(8). Ensure that the revised reports include the following:
 - the proportion of the registrant's total reserves covered by the report and the geographic area in which the covered reserves are located;
 - the assumptions, data, methods, and procedures used, including the percentage of the registrant's total reserves reviewed in connection with the preparation of the report, and a statement that such assumptions, data, methods, and procedures are appropriate for the purpose served by the report;
 - a discussion of primary economic assumptions;
 - a discussion of the possible effects of regulation on the ability of the registrant to recover the estimated reserves; and
 - a statement that the third party has used all methods and procedures as it considered necessary under the circumstances to prepare the report.

20. Text in each of the reports states that the particular report was prepared solely for the information of Nytis Exploration Company, LLC and may not be put to other use without the express written consent of the report provider. Item 1202(a)(8) of Regulation S-K requires the reports and it is inappropriate to limit investor reliance on reports included with your filing. Please obtain and file revised versions of each report which retain no language that could suggest either a limited audience or a limit on potential investor reliance.

Engineering Comment

21. Please furnish to us the petroleum engineering reports – in hard copy and electronic format - you used as the basis for your December 31, 2010 proved reserve disclosures. The report should include:
- one-line recaps for each property sorted by field and by present worth within each proved reserve category including the dates of first booking and estimated first production for your proved undeveloped properties;
 - total company summary income forecast schedules for each proved reserve category with proved developed segregated into producing and non-producing properties;
 - individual income forecasts for the three largest wells (net equivalent reserve basis) in the proved developed and proved undeveloped categories as well as the AFE for each of the three PUD properties – six wells in all; and
 - engineering exhibits (e.g. maps, rate/time plots, volumetric calculations, analogy well performance) for each of these six largest wells.

Closing Comments

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing 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 statement 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 statement 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 above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Robert Carroll at (202) 551-3362 or Sandra Eisen at (202) 551-3864 if you have questions regarding comments on the financial statements and related matters. You may contact Ronald Winfrey, Petroleum Engineer, at (202) 551-3704 if you have questions regarding the engineering comments. Please contact Parker Morrill at (202) 551-3696 or me at (202) 551-3611 with any other questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Branch Chief

cc: Theresa M. Mehringer (via e-mail)