



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4628

June 9, 2010

Donald C. Supcoe
Senior Vice President, Secretary and General Counsel
Energy Corporation of America
4643 South Ulster Street
Suite 1100
Denver, Colorado 80237

**Re: Energy Corporation of America
Amendment No. 1 to Registration Statement on Form S-1
Filed May 7, 2010
File No. 333-165833**

Dear Mr. Supcoe:

We have reviewed your amended filing and your response letter dated May 7, 2010 and we have the following additional 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.

Donald C. Supcoe
Energy Corporation of America
June 9, 2010
Page 2

Engineering Comments

General

1. The page numbers herein refer to the black line copy of the document.

Summary, page 1

ECA Marcellus Trust I, page 1

2. We note your statement, "ECA Marcellus Trust I is a Delaware statutory trust formed in March 2010 by Energy Corporation of America to own royalty interests in 14 producing horizontal natural gas wells producing from the Marcellus Shale formation..." As of March 31, 2010, your third party reserve report classified only 8 wells as having proved developed producing reserves. Please amend your document to clarify that 6 of these "Producing Wells" were not producing as of March 31, 2010, but will be considered as such.
3. You state "The royalty interest in the Producing Wells (the "PDP Royalty Interest") entitles the trust to receive 90% of the proceeds (after deducting post-production costs and any applicable taxes) from the sale of production of natural gas attributable to ECA's interest in the Producing Wells." Please amend your document to clarify, if true, that "proceeds" means the sales revenue attributable to ECA's net revenue interests in the underlying properties before any production or development costs.

ECA Marcellus Trust I, page 2

4. We note your statement, "...ECA and its affiliates will retain an approximate 66% average economic interest in the Underlying Properties." Please amend your document to explain the revenue interest and working interest associated with this economic interest.

Risk Factors, page 17

Actual reserves and future production may be less than current estimates, which could reduce cash distributions by the trust and the value of the trust units., page 19

5. Please expand your reference to "historical production from the area compared with production rates from other producing areas" to explain that Pennsylvania oil and gas production data is kept confidential for five years and that the first Marcellus production in the state was in 2005.

Donald C. Supcoe
Energy Corporation of America
June 9, 2010
Page 3

The natural gas reserves estimated to be attributable to the Underlying Properties of the trust are depleting assets and production from those reserves will diminish over time. Furthermore, the trust is precluded from acquiring other oil and gas properties or royalty interests to replace the depleting assets and production., page 23

6. You state, "As a PUD Well is drilled and placed on production, its reserves are expected to decline approximately 37.5% during the first year of production..." Examination of your third party engineering report indicates that the producing rate will decline as described, not the PUD Well's reserves. Please amend your document to reflect this production performance.

The Trust, page 53

Significant Assumptions Used to Prepare the Target Distributions, Page 60

7. We note your statement, "The hypothetical natural gas prices utilized for purposes of preparing the target distributions are based on estimated market prices for natural gas based on NYMEX forward pricing as of March 11, 2010 for the thirty-six month period ending March 31, 2013. and increased thereafter by a 2.5% annual escalator (as adjusted for a basis differential of \$0.15 per MMBtu), capped at \$9.00 per MMBtu starting in 2025." Please amend your document to present a 36 month schedule of these prices.

The Underlying Properties, page 65

8. The statement, "Currently, the Underlying Properties include approximately 8,480 gross (9,300 net) undeveloped acres" appears inconsistent, since the gross figure is larger than the net. Please amend your document as is necessary.

Discussion and Analysis of Historical Results from the Producing Wells, page 67

9. You present the four producing wells' cumulative production at year-end 2009 as 841 MMCFG. The engineering exhibits for these wells present their total cumulative production at March 31, 2010 as 1,660 MMCFG. This requires an average production for each well in the first quarter of 2010 of 2.2 MMCFD, a figure that is inconsistent with the production plots you have furnished. Please explain this inconsistency to us and amend your document as is appropriate.

Donald C. Supcoe
Energy Corporation of America
June 9, 2010
Page 4

The Reserve Report, page 69

Technologies, page 69

10. We note your statement, “Also, a 3-D seismic survey was shot and interpreted across substantially all of the AMI and has been used to confirm the consistency of important reservoir properties throughout the AMI.”
 - Please explain to us the “important reservoir properties” referenced here. Address the role of seismic analysis, including bright spot interpretation, in your determination of reservoir productivity.
 - It appears that you have mapped 12 PUD locations as immediately adjacent to producing wells. Explain how you determined there is reasonable certainty that the other 40 PUD locations will access reservoir volume that is continuous with the producing reservoir.
11. We note the map you furnished us presents two PUD locations (nos. 4 and 5) as on unleased acreage. Please explain to us the details and implications of this situation and amend your document if it is appropriate.

Internal Controls, page 70

12. We note your statement, “Ryder Scott, the independent petroleum engineering consultant, estimated, in accordance with generally accepted petroleum engineering and evaluation principles and definitions and guidelines established by the SEC, all of the proved reserve information in this registration statement.” While we understand that there are fundamentals of physics, mathematics and economics that are applied in the estimation of reserves, we are not aware of an official industry compilation of such “generally accepted petroleum engineering and evaluation principles”. With a view toward disclosure, please explain to us the basis for concluding that such principles have been sufficiently established so as to judge that the reserve information has been prepared in conformity with such principles. We may have further comment.
13. Please amend your document to disclose the nature of and years of experience in oil and gas reserve estimation for the primary technical person overseeing your reserve reporting process.

Description of the Royalty Interests, page 79

14. We note your statement, “To the extent ECA’s working interest in a PUD Well is less than 100%, the trust’s share of proceeds would be proportionately reduced. Pursuant to the Administrative and Drilling Services Agreement, however, ECA will only

satisfy its drilling obligation when it has drilled 52 equivalent wells. Therefore, any reduction in production proceeds attributable to a PUD Well caused by ECA having less than a 100% working interest in the well will be offset by the requirement to drill additional wells.” Your third party engineering report presents 52 PUD wells with ECA working interest of 100%. Please amend your document to explain the reasons for and significant consequences from adjustment – should it be necessary - to your current PUD location inventory.

Glossary of Certain Oil and Natural Gas Terms and Terms Related to the Trust, Page 126

Proved Oil and Gas Reserves, page 127

15. Your proved oil and gas reserves definitions have been superseded by the SEC’s adoption of new oil and gas rules, effective year-end 2009. Please amend your document to present the current definitions.

Notes to the Statement of Historical Revenues and Direct Operating Expenses, page F-4

Gas Reserves, page F-5

16. We note the disclosure of large changes in proved reserves due to “Extensions and discoveries” here and page F-18. Please amend your document to explain the details of these changes as prescribed by FASB ASC 932 paragraph 932-235-50-5. Apply this comment also to “Revisions of previous estimates” for 2009 on page ECA-51.

Business of Energy Corporation of America, page ECA-2

Oil and Gas Reserves, page ECA-4

17. We note your statement, “The Company’s estimates of proved reserve quantities of its properties have been subject to review by Ryder Scott Company, independent petroleum engineers.” Please amend your document to explain the actions by Ryder-Scott that comprised this “review”.

Production, page ECA-6

18. Please amend your document to disclose your average unit production costs as prescribed by Item 1204 of Regulation S-K.

Donald C. Supcoe
Energy Corporation of America
June 9, 2010
Page 6

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.

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 Lily Dang at (202) 551-3867 or Karl Hiller, Branch Chief at (202) 551-3686 if you have questions regarding comments on the financial statements and related matters. You may contact Ronald Winfrey, Petroleum Engineer at (202) 551-3704 regarding questions on the engineering comments. Please contact Sean Donahue at (202) 551-3579 or me at (202) 551-3611 with any other questions.

Sincerely,

Anne Nguyen Parker
Branch Chief

cc: S. Donahue
L. Dang
K. Hiller
R. Winfrey
D. Oelman (713.615.5861)