

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

December 14, 2010

Bart Demosky Chief Financial Officer Suncor Energy Inc. 112 – 4th Avenue S.W. Calgary, Alberta, Canada T2P 2V5

Re: Suncor Energy Inc.

Form 40-F for Fiscal Year Ended December 31, 2009

Filed March 5, 2010

Response letter dated September 28, 2010

File No. 1-12384

Dear Mr. Demosky:

We have reviewed your response 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 within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. 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 filing and the information you provide in response to these comments, we may have additional comments.

Form 40-F for Fiscal Year Ended December 31, 2009

Annual Information Form

Summary of Oil and Gas Reserves After Royalties, page 31

- 1. We note your response 2c. to our September 7, 2010 letter wherein you state that you will drill SAGD proved undeveloped well pairs through the next 18 and 24 years for the MacKay River and Firebag operations, respectively. Please tell us:
 - Whether you have made a final investment decision that encompasses <u>all</u> the PUD well pairs for each operation;
 - For each operation, the estimated total capital costs required, the capital already expended and the total capital required for well pair drilling alone;

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- The estimated payout date for each operation as well as the current payout status and related economic assumptions;
- Whether termination for either operation before completion of PUD well pair drilling would result in loss of sunk capital.

Schedules E and F

2. We note your response to prior comment three from our letter dated September 7, 2010. Please provide revised reports from Sproule Associates Ltd. and GLJ Petroleum Consultants Ltd that include, in addition to the benchmark prices, the weighted average adjusted prices by geographic area.

Schedule G

- 3. We note your response to prior comment six from our letter dated September 7, 2010. Provide a revised report from RPS Energy that expands its discussion of primary economic assumptions to explain RPS Energy's procedures with regard to the use and verification of production and capital costs.
- 4. In the revised report, we note the table on page seven and the information under "Key Findings of Evaluation and Review" on page five regarding the evaluations and reviews of proved reserves and probable reserves for three of your "International" fields. Please clarify whether the reserves amounts represent your estimates or RPS Energy's estimates. If the amounts are not RPS Energy's estimates, provide the difference between RPS Energy's estimates and your own.
- 5. We note that on page five in the second paragraph under "Key Findings of Evaluation and Review," RPS Energy states that it "has conducted a high-level assessment of reserves data and information provided by Suncor..." with reference made to the COGE Handbook. Please provide a revised report that discusses the procedures that were used to conduct the review of the various properties.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

• the company is responsible for the adequacy and accuracy of the disclosure in the filing;

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- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Sandra Eisen at (202) 551-3864 or Brad Skinner, Senior Assistant Chief Accountant, at (202) 551-3489 if you have questions regarding comments on the financial statements and related matters. Please contact Parker Morrill at (202) 551-3696 or Laura Nicholson at (202) 551-3584 with any other questions.

Sincerely,

H. Roger Schwall Assistant Director