



DIVISION OF  
CORPORATION FINANCE

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

November 29, 2011

Via E-mail

R. Brooks Sherman, Jr.  
Chief Financial Officer  
Inergy Midstream, LLC  
Two Brush Creek Boulevard, Suite 200  
Kansas City, Missouri 64112

**Re: Inergy Midstream, LLC  
Amendment No. 4 to  
Registration Statement on Form S-1  
Filed November 28, 2011  
File No. 333-176445**

Dear Mr. Sherman:

We have reviewed your filing and have the following comment. In our comment, 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 comment applies 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 this comment, we may have additional comments.

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1. We note from your response to comment 6 in our letter dated November 23, 2011 that NRGY expects to use the proceeds of the promissory note to repay various senior notes or to repay borrowings under its term loan facility. Based on your response, there does not appear to be a direct relationship between the debt that will be repaid by NRGY and your historical capital expenditures and operations that were funded by NRGY. Please explain to us how the substance of your assumption of this promissory note differs from paying a cash dividend to your parent company out of the proceeds of your offering. To assist us in understanding this matter, please explain why this transaction was structured as the assumption of debt to be repaid from offering proceeds rather than as a cash dividend. If you believe that the substance of your assumption of the promissory note is the same as paying a cash dividend to your owner, please explain to us how you considered the guidance in SAB Topic 1:B.3.

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You may contact Lisa Sellars, Staff Accountant, at (202) 551-3348 or Jennifer Thompson, Accounting Branch Chief, at (202) 551-3737, if you have questions regarding comments on the financial statements and related matters. Please contact Angie Kim, Staff Attorney, at (202) 551-3535, Catherine Brown, Staff Attorney, at (202) 551-3513 or me, at (202) 551-3720 with any other questions.

Sincerely,

/s/ Jennifer Thompson for

Mara L. Ransom  
Assistant Director

cc: Laura Ozenberger  
Inergy, L.P.

Gillian Hobson  
Vinson & Elkins LLP