



DIVISION OF
CORPORATION FINANCE

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

October 26, 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. 1 to
Registration Statement on Form S-1
Filed October 11, 2011
File No. 333-176445**

Dear Mr. Sherman:

We have reviewed your filing 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.

Summary, page 1

1. We note your response to comment eight in our letter dated September 23, 2011 and the related revisions in your filing. Your summary continues to be lengthy and contain duplicative information. Please further delete or shorten the disclosure on page 2 as it is repetitive of information contained on page 69. Please see Section II.A.3.c of Securities Act Release No. 33-6900 and the instruction to Item 503(a) of Regulation S-K.

Inergy L.P., page 4

2. Please revise your summary risk factors to include the risks discussed in the last risk factor on page 23, including the revisions to your filing in response to comment 19 in our letter dated September 23, 2011.

Non-GAAP Financial Measures, page 16

3. It is unclear to us how you complied with comment 15 from our letter dated September 23, 2011. As previously requested, please revise footnote (a) to clarify how you calculated the interest of non-controlling partners in consolidated ITDA. For example, if these amounts were determined by allocating based on proportional ownership the interest, taxes, depreciation and amortization related to your less than wholly-owned subsidiary, you should clarify this. Alternatively, if these expenses were allocated using a different methodology such as an underlying partnership agreement that allocates the revenues and expenses of the subsidiary on a basis other than proportional ownership, please clarify this. Please also clarify, if true, that this amount represents the portion of the interest, taxes, depreciation and amortization of your Steuben natural gas storage facility that is related to its minority partners and that you acquired this non-controlling interest during the year ended September 30, 2010, as we believe this provides useful information to your readers.

Cash Distribution Policy and Restrictions on Distributions, page 46

Our Ability to Grow is Dependent on Our Ability to Access External Expansion Capital, page 47

4. We note your revisions in response to comment 19 from our letter dated September 23, 2011. You indicate that your parent company has a strong economic incentive to support your growth plan and strategy, including by providing you with direct or indirect financial assistance. You also indicate that your parent company's ability to provide you with funding is "substantially restrict[ed]" by the indentures governing its senior notes. Please expand your disclosure to explain in more detail the restrictions imposed by the indentures governing NRGY's senior notes on its ability to provide you with funding, as we believe it is important to provide your investors with additional context to evaluate the likelihood that your general partner or other affiliates will provide you with direct or indirect financial assistance following the closing of this offering.

Assumptions and Considerations, page 53

Revenue, page 54

Firm Storage, page 54

5. We note your additions to this section based on comment 24 from our letter dated September 23, 2011. Given that you expect your revenues to increase significantly as compared to the most recent 12 month period, we continue to believe that you should provide more information to your investors about the assumptions underlying this increase. In this regard, we note your disclosure that the increase in firm natural gas storage revenue is primarily the result of the acquisition of the Seneca Lake facility and the increase in NGL firm storage is partially attributable to new capacity at the Watkins

Glen facility. However, you have not disclosed the level of contracted capacity that you have assumed in forecasting the revenue amounts for these facilities, nor have you disclosed your basis for assuming this level of contracted capacity. You also have not addressed whether the price you charge for natural gas storage differs significantly from the price you charge for NGL storage. Please revise to clarify these matters. Your revisions should assist a reader in understanding why the 2.1 million barrel NGL storage facility at Watkins Glen would increase revenue by \$4.5 million while the 1.5 bcf natural gas storage facility at Seneca Lake would increase revenue by \$6.5 million.

Hub Services, page 55

6. We note your added disclosure that you believe you will transport more interruptible wheeling volume for shippers. Please explain in more detail the reasons you expect an increase in interruptible wheeling volume.

Cost of Services Sold, page 55

7. We note your revisions in response to our comment 27 from our letter dated September 23, 2011. It remains unclear from your current disclosures why a 50% increase in revenue as compared to the most recent 12 months would not result in a similar increase in cost of services sold. Please quantify the amount of the decrease you expect from your decision to reduce the transportation capacity you contracted on the TGP interstate pipeline and the amount of the increase you expect from placing into service 825 MMcf/d of new transportation capacity and the acquisition of the Seneca Lake facility to better explain the reasons that cost of services sold would decrease while revenues increased significantly. Additionally, if the cost of services sold related to your firm storage is largely offset by fuel-in-kind collections such that the net cost of services sold does not vary directly with changes in firm storage revenue, please clarify this.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 69

Liquidity and Sources of Capital, page 83

Capital Requirements, page 85

8. We note your disclosure regarding the capital requirements for your internal growth projects throughout the prospectus. To facilitate an investor's understanding of these costs, please provide tabular disclosure under this heading or in another appropriate location in your prospectus of the total cost of each internal growth project, the costs incurred for each project for the fiscal year ended September 30, 2010, the costs incurred for each project for the nine months ended June 30, 2011, the costs expected to be incurred for each project between July 1, 2011 and December 31, 2011, the costs expected to be incurred for each project for the year ending December 31, 2012 and the

anticipated completion date of each project. To the extent your next amendment includes updated financial statements for the fiscal year ended September 30, 2011, please instead provide tabular disclosure of the following:

- the total cost of each internal growth project;
- the costs incurred for each project for the fiscal years ended September 30, 2010 and 2011;
- the costs expected to be incurred for each project between October 1, 2011 and December 31, 2011;
- the costs expected to be incurred for each project for the year ending December 31, 2012; and
- the anticipated completion date of each project.

Please also include for each period both the dollar amount and percentage of the respective total for each project.

Business, page 97

9. We note your response to comment 62 from our letter dated September 23, 2011. Please consider disclosing substantially the same information as was contained in your response in an appropriate location in your filing, such as where you reference the cost-of-service rate structure on page 99, as we believe this provides valuable context to your investors.

Executive Compensation, page 122

Historical Compensation, page 122

10. We note your disclosure that the historical compensation for your named executive officers is set forth in NRGY's annual report on Form 10-K. Please either revise your registration statement to include the required compensation disclosure for your recently completed fiscal year ended September 30, 2011 or update the public disclosure of NRGY to include this information and revise the cross-reference under this heading so it is clear to investors where they can locate the compensation of your named executive officers for your most recently completed fiscal year. For additional guidance, please refer to Question and Answer 117.05 of the Division of Corporation Finance's Regulation S-K Compliance & Disclosure Interpretations available on our website at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>.
11. We note your response to comment 44 in our letter dated September 23, 2011 and the related revisions in your filing that "William R. Moler has historically devoted a majority

of his time to Inergy Midstream, LLC. We expect that Mr. Moler will initially devote approximately 75% of his time to our operations.” Please clarify how Mr. Moler’s significant role at Inergy Midstream has impacted his compensation for your most recently completed fiscal year and, if known, how you expect this will impact his future compensation. As an example, we note the sole metric used to determine whether bonuses would be paid to the NRGY named executive officers, including Mr. Moler, in fiscal 2010 was NRGY’s achievement of the target of Adjusted EBITDA. If known, please tell us whether you expect that Mr. Moler’s future bonuses or other elements of compensation will be linked to performance metrics at Inergy Midstream.

Financial Statements, page F-1

Financial Statements for the Fiscal Year Ended September 30, 2010, page F-7

Consolidated Statements of Operations, page F-9

12. We note your response to comment 59 from our letter dated September 23, 2011. We note that you continue to present a subtotal called “Gross profit” on the face of your statements of operations and that you have presented depreciation and amortization below this gross profit line item. Despite the fact that you have parenthetically noted that cost of services sold excludes depreciation and amortization, SAB Topic 11:B also prohibits reporting a figure for income before depreciation. Please explain to us how your presentation of a subtotal for gross profit before depreciation and amortization expense complies with this guidance, or revise.

Note 9. Subsequent Events, page F-20

13. We note your response to comment 70 from our letter dated September 23, 2011 and your revisions indicating that the acquisition of the Seneca Lake natural gas storage facility is accounted for as an acquisition of a business. Please explain to us in more detail why your tabular presentation of the estimated fair value of the acquired assets includes only property, plant and equipment. In this regard, we note that your narrative disclosure above this table refers to property, plant and equipment, intangible assets and goodwill, and we assume that you acquired some storage contracts or customer relationships.

Item 16. Exhibits, page II-2

14. We note your response to comment 73 in our letter dated September 23, 2011 and the related revisions in your amendment. Please also file your certificate of formation, as currently in effect. Please see Item 601(b)(3)(i) of Regulation S-K.

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

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Inergy Midstream, LLC
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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/ Brigitte Lippmann for

Mara L. Ransom
Assistant Director

cc: Laura Ozenberger
Inergy, L.P.

Gillian Hobson
Vinson & Elkins LLP