



DIVISION OF
CORPORATION FINANCE

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

September 23, 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
Registration Statement on Form S-1
Filed August 24, 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.

General

1. Please include all information that is not subject to Rule 430A in the next amendment, including a bona fide estimate of the range of the maximum offering price for the shares and the maximum number of shares offered. Please allow us sufficient time to review your complete disclosure prior to any distribution of preliminary prospectuses.
2. Prior to the effectiveness of the registration statement, please arrange to have FINRA call us or provide us with a letter indicating that FINRA has cleared the filing.
3. All exhibits are subject to our review. Accordingly, please file or submit all of your exhibits with your next amendment, or as soon as possible. Please note that we may have comments on the legal and tax opinions as well as the other exhibits once they are filed. Please understand that we will need adequate time to review these materials before accelerating effectiveness.

4. Please provide us with gatefold information such as pictures, graphics or artwork that will be used in the prospectus, if any.
5. We note your disclosure throughout your registration statement that Inergy, L.P. owns additional midstream assets in addition to the Northeastern midstream assets it is contributing to you in connection with this offering. We also note that the acquisition of facilities from Inergy, L.P. and third parties in the future is one of the key components of your business strategy to increase the cash distributions that you pay to your common unitholders. Please revise to disclose the factors Inergy, L.P. considered in determining those assets to contribute to you in connection with your initial public offering as well as the factors it considered in determining to retain its remaining midstream assets.

Prospectus Cover Page

Cover Page

6. Consistent with your disclosure elsewhere on the prospectus cover page, please revise the 10th bullet to refer to Inergy, L.P.
7. We note your disclosure in the second risk factor on page 34 that, “[u]nlike most publicly traded partnerships with incentive distribution rights, [you] will not have any subordinated units held by [y]our general partner and its affiliates the distributions on which would be reduced in order to support a distribution to common unitholders.” Please expand the risk factor on your prospectus cover page and in your summary risk factors to provide investors with more information on the risks this atypical structure poses to them.

Summary, page 1

8. Please revise your prospectus to eliminate or reduce repetitive information, and to ensure that the information flows logically so that investors will more readily understand the significance of your disclosures. Currently your summary is lengthy and contains duplicative information. For example, the Overview section of your prospectus summary repeats disclosure on pages 68 and 95 while the Natural Gas Storage chart on pages 2 and 3 is repetitive of information contained on page 97. Please delete or shorten these sections. 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.

Our Business Strategies, page 4

9. Please revise the third bullet point to state, as you do on page 102, that NRGY is under no obligation to make any acquisition opportunities available to you. Similarly, please revise the third bullet point in the “Our Competitive Strengths” section on page 5 to clarify, as you do on page 104, that NRGY has no obligation to sell or jointly develop

any assets with you. We note similar statements in other areas of your filing, such as in the “Growth Opportunities” section on page 71. Please review your entire filing for compliance with this comment.

Our Competitive Strengths, page 5

10. We note your statement in the fifth bullet point that “[a]s of June 30, 2011, approximately 95% of [y]our storage revenue was obtained from fixed reservation fees under long-term storage agreements with strong, creditworthy customers...” We further note similar statements in other parts of your filing such as on pages 103 and 104. Please revise to provide this percentage as of a more recent practicable date in light of your subsequent purchase of Seneca Lake, which is only 59% contractually committed. Please review your entire filing for compliance with this comment.

The Offering, page 11

Cash distributions, page 11

11. Consistent with your disclosure in the third risk factor on page 37, please revise to clarify that reimbursements to your general partner and its affiliates are made prior to cash distributions to common unitholders. Please also briefly describe and quantify the general partner’s and its affiliates’ fees and expenses that are paid prior to the distributions. Please make similar revisions in the risk factors on pages 19 and 37, your disclosure under the headings “Cash Distribution Policy and Restrictions on Distributions” on page 46, “Payments to our general partner and its affiliates” on page 123, and elsewhere in the filing, as applicable. Please see Securities Act Release No. 33-6900.

Material U.S. federal income tax consequences, page 14

12. Please disclose that you have received a tax opinion and identify counsel.

Summary Historical and Pro Forma Financial and Operating Data, page 15

13. Please clearly disclose that all periods of financial statements presented here are those of Inergy Midstream, LLC and its subsidiaries, excluding Tres Palacios Gas Storage LLC and US Salt, LLC, and that you have excluded Tres Palacios and US Salt because you will transfer these businesses to your parent company prior to the closing of this offering. We note your disclosure on this matter elsewhere in your filing; however, we believe it will assist the reader’s understanding of the financial information presented to make these disclosures in the same location as the related financial information. Please also apply this comment to your Selected Historical and Pro Forma Financial and Operating Data on page 65.

Non-GAAP Financial Measures, page 17

14. We note that you have presented a non-GAAP financial measure labeled as EBITDA. We further note that you have reconciled this measure to net income attributable to members/partners instead of net income and you have removed the portion of ITDA attributable to non-controlling partners. Since the measure you are presenting appears to be the portion of EBITDA attributable to members/partners instead of EBITDA, please revise the title of this measure to distinguish it from EBITDA and reconcile this measure to net income. Refer to questions and answers 103.01 and 103.02 from our Compliance and Disclosure Interpretation on Non-GAAP Financial Measures at <http://sec.gov/divisions/corpfin/guidance/nongaapinterp.htm>.
15. If you continue to present the measure that you call EBITDA, please revise footnote (a) to clarify how you calculated the interest of non-controlling partners in consolidated ITDA.

Risk Factors, page 19

Tax Risks to Common Unitholders, page 39

Our tax treatment depends on our status..., page 39

16. Mitigating language is generally not appropriate for risk factor discussion. Please revise this risk factor to delete the statement that you do not believe, based upon your current operations, that you will be treated as a corporation.

Use of Proceeds, page 43

17. We note your disclosure in the first paragraph regarding the use of a portion of the proceeds. Please disclose how the balance of the net proceeds will be used. Please see Item 504 of Regulation S-K.

Cash Distribution Policy and Restrictions on Distributions, page 46

General, page 46

Limitations on Cash Distributions and Our Ability to Change Our Cash Distribution Policy, page 46

18. Please refer to the seventh bullet point under this heading. You state that the ability of your subsidiaries to make distributions to you may be restricted by, among other things, the provisions of existing and future indebtedness. It is unclear from your current disclosure whether the indebtedness that you will have at the closing of this offering will contain restrictions on the ability of your subsidiaries to make distributions to you, and if

so, the terms of such restrictions. Please revise your disclosure to provide more detailed information about your specific situation at the time of closing so that investors can assess the likely impact of any such restrictions on your ability to pay cash distributions.

19. We note that you historically have received funding from your affiliates. Please tell us and disclose to your investors whether there is a commitment, intent or reasonable possibility that your general partner or other affiliates will fund your cash flow deficits or provide other direct or indirect financial assistance to you following the closing of this offering.

Estimated Cash Available for Distribution for the 12 Months Ending December 31, 2012, page 51

20. We note that the most recent period of historical financial statements included in this filing is the nine months ended June 30, 2011. Please explain to us why you believe it is meaningful for your forward looking calculation of pro forma available cash to be for the 12 months ended December 31, 2012 as this date is 18 months from your most recent balance sheet date and approximately 16 months from the date of this filing. To help us better understand the reason for this presentation, please tell us whether a calendar period is more susceptible to projection than a fiscal year and provide us with your estimate of when you will request effectiveness for this filing and when you will close this offering.
21. We note your subtotal titled "Total distributions." Please revise the title of this line to clarify, if true, that this subtotal represents total minimum annual cash distributions. If our understanding of this subtotal is incorrect, please explain to us in more detail and revise the title of this line to better convey what this subtotal represents.

Assumptions and Considerations, page 53

22. Given the significant differences in your forecasted results as compared to your historical periods, please ensure that you provide a robust discussion of each underlying factor that contributes to the expected differences, or provide a cross-reference to where this disclosure is provided elsewhere in your filing, and quantify the impact of each factor on your results where practicable.
23. We read at the bottom of page 53 that your forecast for the 12 months ending December 31, 2012 assumes and reflects the completion of the construction projects listed and the acquisition and expansion of Seneca Lake. Given the significant impact these items are expected to have on your forecasted results, please revise to provide more information about these items.
- In regards to the construction and expansion projects listed, please describe in better detail the expected period during which construction will occur, the percentage of construction completed to date, and based on the foregoing,

whether you are on schedule to meet the disclosed dates at which the items will be placed into service. For example, you disclose that you expect to place your North/South expansion project into service in October 2011. In order to meet this deadline, we assume you would have completed virtually all of that project as of the end of September 2011, and if you had not, additional explanation would be necessary to clarify why October 2011 was still an appropriate service date or to clarify that you had pushed back the service date and adjusted your estimated cash distributions accordingly.

- In regards to the acquisition of Seneca Lake, since this acquisition has not yet appeared in your historical financial statements, it is unclear to your readers what impact this acquisition is expected to have on your results in the near term and whether or why you are forecasting an improvement in results from this facility over the next 16 months. In this regard, we assume that you may have acquired some storage contracts with this facility; however, you indicate on page 3 that you currently have contractually committed only 59% of this facility's capacity and you are in the process of leasing out the remaining capacity. Please explain in more detail your assumptions related to this facility, either here or throughout the discussion of your assumptions. If possible, please quantify the revenues and expenses related to this acquired facility during the three months ended September 30, 2011, and based on this historical data, explain the basis for any assumptions about changes between September 30, 2011 and December 31, 2012.
- We note your disclosure of the expected expansion of the Seneca Lake facility by 0.6 Bcf. Given that this additional capacity does not appear material to your current total working gas storage capacity of 41.0 Bcf as disclosed on page 3, and given that you do not expect to complete this expansion until December 1, 2012, we assume that this expansion has very little impact on your forecasted cash available for distribution. Please confirm our assumption and clarify this to your readers, or if our assumption is incorrect, please explain this to us in detail.

Revenue, page 54

Firm Storage, page 54

24. We note that you expect your firm storage revenue to be \$107 million for the year ended December 31, 2012. We also note that you have given the percentages of that revenue you expect to be generated from natural gas storage under existing contracts, natural gas storage under new contracts, and NGL storage under existing contracts. Please clarify to your investors your historical volume from each source versus your forecasted volume from each source. Please also quantify the increase in revenue you expect from each of these sources and the extent to which these increases are related to an increase in volume, an increase in rates, or the introduction of new facilities.

Transportation, page 54

25. We note your discussion of your expected increase in transportation revenue in the year ended December 31, 2012. We note that you have significant new assets that you plan to place in service that account for the majority of the increase in transportation revenues. However, it appears that none of these sources accounts for the revenue that was recognized in the year ended September 30, 2010 and the 12 months ended June 30, 2011. Please explain the source of your historical transportation revenue and whether or how you expect it to change over the forecast period.

Hub Services, page 55

26. Please explain in more detail the reasons you expect an increase in your revenue from Hub services for the year ended December 31, 2012. Please quantify the effect of each different reason.

Cost of Services Sold, page 55

27. Please explain in more detail the reasons that you expect your cost of services sold to decrease for the year ended December 31, 2012 as compared to the year ended September 30, 2010 and the 12 months ended June 30, 2011, especially given the fact that you expect your revenue to increase by 70% and 52%, respectively.

Operating and Administrative Expenses, page 55

28. You state on page 120 that in connection with the closing of this offering, the board of directors of your general partner may grant awards to your key employees and your outside directors pursuant to the long-term incentive plan. We assume that you have not included any expense related to these possible LTIP awards since no final decision has been made. If our assumption is correct, please disclose that this is one of the assumptions underlying your forecasted amount of operating and administrative expenses so that investors better understand how a decision on this matter may impact your estimated cash distributions.

Capital Expenditures, page 55

29. We note your disclosure elsewhere in this document, such as pages 23 and 103, that you are developing approximately \$380 million in internal growth projects expected to be completed throughout 2012. It is unclear from your disclosures what portion of this \$380 million was spent during the periods for which you present historical financial statements, what portion is expected to be spent during the 12 months ended December 31, 2012 forecasted here, and what portion is expected to be spent between June 30, 2011 and December 31, 2011 (i.e. the period not covered by your historical financial statements or your forecasted financial statements). Please revise your disclosures in an

appropriate location in this filing to clarify this matter so that we can reconcile the disclosures elsewhere in this document to your forecast that you will spend only \$120.1 million on capital expenditures during the 12 months ended December 31, 2012.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 68

Results of Operations, page 74

30. Please revise your discussion of results of operations to provide more insight to your investors on the underlying causes of increases or decreases in the components of net income. When you identify intermediate causes of changes in revenues, such as an increase or decline in demand, a change in the mix of customers, a decrease in compression costs, or an increase in fuel-in-kind collections, please provide your readers with insight into the underlying drivers of those changes.

Nine Months Ended June 30, 2011 Compared to Nine Months Ended June 30, 2010, page 74

Cost of Services Sold, page 74

31. We note your disclosure on page 74 that "[t]ransportation cost of services sold was \$5.1 million for the nine months ended June 30, 2011 and 2010" and your disclosure on page 77 that "[t]ransportation cost of services sold was \$6.8 million in fiscal 2010 and 2009." Please explain if these costs are fixed in both periods presented and if so, why. Please see Item 303(a)(3) of Regulation S-K.
32. We note your disclosure that "[v]ehicle costs and wages amounted to \$2.4 million and \$1.2 million for the nine months ended June 30, 2011 and 2010, respectively." Please explain the reason for this increase. Please see Item 303(a)(3) of Regulation S-K.

Liquidity and Sources of Capital, page 81

Revolving Credit Facility, page 83

33. It appears that you will be familiar with the terms of your new credit facility prior to the closing of this offering. If true, upon learning the terms of your new credit facility, please update to include the material terms of the agreement, including the financial covenants you must satisfy prior to making cash distributions. Please also update the first bullet under the heading "Limitations on Cash Distributions and [Your] Ability to Change [Your] Cash Distribution Policy" on page 46 to cross-reference to the discussion of these restrictions in your MD&A.

Contractual Obligations, page 84

34. We note that the only item included in your contractual obligations table is purchase commitments of identified growth projects. Please tell us how you considered including obligations related to capital or operating leases, asset retirement obligations, or any other long-term liabilities reflected on your balance sheet.
35. Based on the disclosures elsewhere in your filing that you are developing approximately \$380 million in internal growth projects expected to be completed throughout 2012, please explain to us why your purchase commitments of identified growth projects as of September 30, 2010 are only \$12.3 million.

Natural Gas Industry, page 87

36. We note your disclosure on pages 5 and 103 that one of your competitive strengths is that you have “[s]trategically located assets proximate to prolific shale plays.” We further note your statement that “[n]atural gas production from the major shale formations is forecast to provide the majority of the growth in unconventional natural gas supply, increasing to approximately 47% of total U.S. natural gas supply in 2035 as compared with 16% in 2009.” Please provide us with the supporting documentation for this statement.

Business, page 95

Our Assets, page 95

37. Please explain any discrepancies between your disclosure and the Inergy Midstream portion of the Inergy website and revise your registration statement or website, as appropriate. By way of example only, we note the following discrepancies under this subheading and the subheading “Our Growth Projects” starting on page 98:
- Throughout your registration statement, you disclose that Stagecoach is 95% contractually committed whereas the website reflects 100%;
 - Throughout your registration statement, you describe the MARC I pipeline as a 39-mile pipeline whereas the website states this is a 43-mile pipeline; and
 - Throughout your registration statement, you describe your existing NGL storage near Bath, New York as a 1.5 million barrel NGL facility whereas the website states that this is a 1.7 million barrel facility.

We also note disclosure on your website regarding the facility-owned pipeline at Steuben that does not appear to be described in your registration statement on page 96. Please revise your registration statement on page 96 and elsewhere, if appropriate, to disclose

the “facility-owned 12.5 mile pipeline connected to Dominion’s Woodhull line” described as a part of the Steuben facility overview, available at this link: <http://www.inergy1p.com/midstream/gasstorage/steuben/index.asp> or tell us why it is not appropriate to do so.

Natural Gas Storage, page 96

38. We note your statement in footnote 3 on pages 3 and 97 that “Thomas Corners is indirectly connected to Dominion through [y]our Steuben facility.” We further note your statement on page 96 that you “intend to request FERC authorization to connect Thomas Corners to Dominion through Steuben’s existing laterals.” Please clarify in this footnote that connectivity to Dominion is still pending.

Our Operations, page 99

Natural Gas Storage Services, page 99

39. We note the following disclosures for the fiscal year ended September 30, 2010 and the nine months ended June 30, 2011:
- In the first paragraph of this section, you disclose that “approximately 79% and 80%, respectively, of [y]our total revenue was derived from fee-based storage activities, including firm storage services and hub services;”
 - In the second paragraph of this section, you disclose that “approximately 77% and 76%, respectively, of [y]our total revenue was derived from firm storage services;” and
 - In the penultimate paragraph on page 100, you disclose that “approximately 13% and 12%, respectively, of [y]our total revenue was derived from interstate transportation services.”

Please revise to state for each of the last three fiscal years the amount or percentage of total revenue contributed by fee-based storage activities, including firm storage services and hub services, firm storage services and transportation services. Please see Item 101(c)(1)(i) of Regulation S-K.

40. Please revise the table at the top of page 101 to include a column indicating whether the type of service is a firm storage service, a hub service or a transportation service. Please also revise your disclosure to describe no-notice storage services.

Natural Gas Transportation Services, page 100

41. Please revise your disclosure to define the term NYSEG.

Our Business Strategies, page 101

Acquire facilities from NRGY and third parties, page 102

42. In light of your disclosure that “NRGY is under no obligation to make acquisition opportunities available to [you],” please revise the subheading here and elsewhere in your prospectus to remove the implication that your long-term strategy includes definitive plans to acquire midstream assets from NRGY. Alternatively, if you have an agreement or understanding with NRGY to acquire Tres Palacios, salt caverns from US Salt and/or NRGY’s West Coast NGL business, please revise to disclose the terms of these arrangements. Please also revise to disclose that NRGY is not restricted from competing with you and may also acquire, construct or dispose of natural gas or NGL facilities or other midstream assets in the future without any obligation to offer you the opportunity to purchase or construct those assets. Please make similar revisions throughout your registration statement where you discuss the potential NRGY acquisition opportunities, including in your prospectus summary.

Title to Properties and Rights of Way, page 113

43. We note your disclosure that you have real property in which your interest derives from leases and that some of the land on which your facilities are located are held by you pursuant to leases. However, we do not see any mention of leases in the footnotes to your financial statements or your contractual obligations table. Please explain to us in more detail the leases that you are a party to and how you considered disclosing information related to them in your footnotes and contractual obligations table.

Executive Compensation, page 119

Compensation Discussion and Analysis, page 119

Historical Compensation, page 119

44. We note your disclosure in this section that “[b]ecause our general partner was recently formed and has not accrued any compensation obligations, we are not presenting historical compensation information.” We further note your disclosure in the third paragraph on page 119 that “[c]ertain of our officers may devote the majority of their time to our business, while other officers will have responsibilities for both us and NRGY and will devote less than a majority of their time to our business.” Please clarify whether any of the executive officers of Inergy Midstream, LLC have historically devoted a majority of their time to your (or Inergy Midstream, LLC’s) business. We may have further comments after we review your response.

Security Ownership of Certain Beneficial Owners and Management, page 121

NRGM GP, LLC Change of Control Event, page 121

45. In an appropriate place in your filing, please clarify the role of MGP GP, LLC. Please also add this entity to the diagram on page 10.

Certain Relationships and Related Party Transactions, page 122

46. We note the disclosure regarding your guarantee of certain indebtedness of Inergy, L.P. both in Note 7 to your consolidated financial statements and Note 4 to your unaudited consolidated financial statements. To the extent this guarantee will be terminated in connection with the offering, please revise to disclose this. If this guarantee will continue, please revise your registration statement under this heading to provide the disclosure required by Item 404(a) of Regulation S-K, under the subheading "Limitations on Cash Distributions and Our Ability to Change Our Cash Distribution Policy" on page 46 to discuss any restriction on your ability to pay distributions resulting from this guarantee and elsewhere, as appropriate.

Agreements with Affiliates in Connection with the Transactions, page 123

Contribution Agreement, page 124

47. We note your disclosure that immediately prior to this offering, you "will transfer or distribute to Inergy, L.P. ... certain assets that will not be part of [y]our initial assets, including 100% of the membership interests in ... US Salt." In the penultimate bullet on page 91, you describe "real ... property acquisition costs" as one of the primary cost categories for the development of natural gas storage facilities. In describing your NGL storage growth project under the heading "NGL Storage" on page 98, you disclose that "the land comprising the [Watkins Glen] brine field is owned by [y]our affiliate, US Salt..." and that this growth project "will utilize existing salt caverns solution mined by US Salt..." Please revise your disclosure to describe the material terms of any agreements you have with US Salt relating to the development of the Watkins Glen NGL storage facility, such as agreements governing the transfer or lease of the property for this facility. Please also provide the information required by Item 404(a)(3) and (a)(4) of Regulation S-K for the third-party storage contracts at Watkins Glen that will be assigned to you by Inergy Propane.

Other Transactions with Related Persons, page 125

48. We note your disclosure regarding the firm storage services you provide to your affiliate, Inergy Propane, at your Bath NGL storage facility. Please revise to state under this heading the duration or expiration date of this agreement.

49. We note our disclosure that “[a]s of June 30, 2011, [you] had approximately \$123.7 million of indebtedness outstanding to Inergy Propane, which was not subject to interest.” Please update this amount of indebtedness as of the latest practicable date in this section and throughout your filing, such as on pages 9, 15 and 65. For the last fiscal year, please also provide the largest aggregate amount of the principal outstanding and the amount of principal paid, if any. Please see Item 404(a)(5) of Regulation S-K.

Material U.S. Federal Income Tax Consequences, page 150

Taxation of the Partnership, page 150

Partnership Status, page 150

50. We note that counsel’s opinion regarding whether a deemed contribution and liquidation following your failure to meet the qualifying income exception will result in the recognition of taxable income is subject to a degree of uncertainty because counsel uses the phrase “should not” instead of “will not” when providing its opinion. Please revise your disclosure to explain why counsel cannot provide an opinion with certainty subject to the assumptions and qualifications contained in the opinion, describe the degree of uncertainty and provide a risk factor setting forth the risks to investors associated with such uncertainty, including without limitation the impact on investors if the Internal Revenue Service or a court takes a contrary position to the position taken by counsel in its opinion.

Financial Statements, page F-1

Unaudited Pro Forma Condensed Consolidated Financial Statements, page F-2

51. We note your list of the several formation transactions reflected in the pro forma condensed consolidated financial statements. Please revise your disclosure to clarify that the transfer of Tres Palacios Gas Storage LLC and US Salt to NRGY is already reflected in the Historical column. All of the other transactions you list in this section are reflected as pro forma adjustments, so this may be unclear to your investors.
52. We note your disclosure in footnote (e) that you will borrow an additional \$80 million on the assumed credit facility to fund a distribution to Inergy, L.P. in connection with the reimbursement of capital expenditures associated with your assets. Please confirm to us, if true, that these capital expenditures and the related payable to Inergy, L.P. are reflected in your historical financial statements, and consider clarifying this matter to your investors.

Unaudited Pro Forma Condensed Consolidated Statement of Operations, page F-4 and 5

53. Please revise to include pro forma earnings per share for the nine months ended June 30, 2011 and the year ended September 30, 2010. Refer to Rule 11-02(b)(7) of Regulation S-X.
54. We note the discussion of allocated depreciation associated with corporate fixed assets within Note 2 to your historical financial statements. Please tell us whether you will continue to use these corporate fixed assets in the future, and if so, whether you will reimburse Inergy, L.P. for the use of these assets. If you will reimburse Inergy, L.P. for the use of these assets, please tell us whether you considered if categorizing these costs as rental expense would be more appropriate than categorizing them as depreciation since the related fixed assets will not be reflected on your balance sheet.
55. Please tell us how you considered whether the expenses reflected in your historical carve-out financial statements are indicative of your anticipated expenses as a stand-alone company. In this regard, since you believe the terms of the omnibus agreement with Inergy, L.P. are no less favorable to either party than those that could have been negotiated with an unaffiliated party, we assume that your expenses related to administrative services provided by Inergy, L.P. may increase following this offering as compared to the amount of allocated expenses reflected in your historical financial statements. Additionally, expenses such as compensation of your executive officers and other personnel are likely to increase once you are a stand-alone public company. If you do not have enough information about the likely increase in expenses to result in a factually supportable pro forma adjustment, you should provide a pro forma footnote describing in reasonable detail the types of expenses that are likely to increase upon the closing of this offering and quantifying management's best estimate of the likely increase, similar to your disclosure about the additional expenses associated with being a publicly traded company.

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

Consolidated Balance Sheets, page F-8

56. We note that the line item "Prepaid expenses and other current assets" is greater than five percent of total current assets. Please tell us how you considered the guidance in Rule 5-02(8) of Regulation S-X. As part of your response, please provide us with a quantified detail of the types of accounts contained within this line item.

Consolidated Statements of Operations, page F-9

57. We note your presentation of Transportation revenue in each of the years ended September 30, 2010, 2009, and 2008. We also note your statements throughout your document that your MARC I pipeline and North/South expansion project are under

development and not yet in operation. We also note that your intrastate pipeline was acquired in July 2011, which is subsequent to the most recent balance sheet presented. Please explain to us in more detail the source of your transportation revenues and revise your footnotes to clarify this matter for your investors.

58. We note that you have presented revenue for Firm Storage, Transportation, and Hub Services but have only presented cost of services sold for Storage and Transportation. Please tell us and clarify for your investors where cost of services sold related to your Hub Services is included in your statement of operations.
59. We note that you have presented a subtotal called "Gross profit" on the face of your statements of operations. We further note that you have presented depreciation and amortization below this gross profit line item. We also note your disclosure on pages F-13 and F-14 that you have included some costs incurred in providing storage services in operating and administrative services. Please explain to us why you believe it is appropriate to show this subtotal for gross profit, including how you considered the guidance in SAB Topic 11:B related to reporting a figure for income before depreciation.
60. We note your disclosure in Note 5 concerning the ASC Credit Agreement that was repaid in July 2010. Please tell us where you have recorded interest expense related to this debt and consider clarifying this matter to your investors.

Note 1. Organization and Basis of Presentation, page F-13

61. We read your disclosure that the accompanying consolidated financial statements have been prepared to represent the net assets and related historical results of Inergy Midstream with the exception of the operations of US Salt, LLC. This is inconsistent with disclosures elsewhere in your filing, which indicate that your financial statements exclude both Tres Palacios Gas Storage LLC and US Salt, LLC. Please revise or advise.

Note 2. Summary of Significant Accounting Policies, page F-13

62. You disclose on page 96 that your Steuben facility is a single-turn natural gas storage facility located in Steuben County, New York that generates fee-based revenues under a cost-of-service rate structure. Please tell us if you apply accounting for regulated operations as described in ASC 980. If so, please tell us how you considered the need for disclosures related to such accounting.

Revenue Recognition, page F-13

63. Since you separately present revenue from Firm Storage, Transportation, and Hub Services on the face of your statements of operations, please revise your accounting policy to briefly explain how you generate and recognize revenue for each of these types of activities. Your current disclosure that revenue is recognized during the period in

which the services are provided appears overly generic. Refer to Question 1 of SAB Topic 13:B.

Allocation of Expenses, page F-16

64. We note your statement that the allocation of shared costs does not necessarily reflect the costs which would have been incurred by Inergy Midstream on a stand-alone basis. Please tell us how you considered the guidance in Question 2 of SAB Topic 1:B.1 to quantify management's estimate of what the expenses would have been on a stand-alone basis. If you did not provide this disclosure because it is not practicable to estimate what the expenses would have been on a stand-alone basis, please disclose a statement to this effect.
65. We note that calculations of Adjusted EBITDA seen elsewhere in your filing include an adjustment for long-term incentive and equity compensation expense. Please confirm to us, if true, that this expense is included in the amounts allocated for personnel expense, and revise this footnote to describe in better detail the types of personnel expense you have incurred and to quantify the amount related to each major category of personnel expense.

Reportable Segment, page F-18

66. Please explain to us in more detail how you determined that you have one reportable segment. Please address in your response whether your operating segments are the same as your reportable segments or whether you have aggregated multiple operating segments into your reportable segments. Please also describe in reasonable detail the types of reports that are reviewed by your CODM and the types of information that are included therein. Please revise future filings to clarify whether you aggregate multiple operating segments consistent with paragraph ASC 280-10-50-21.

Recently Issued Accounting Pronouncements, page F-18

67. We note your discussion of ASC 810-10 and your disaggregation of equity and net income between non-controlling partners and members. Please tell us what entity interest is represented by the non-controlling partners and consider clarifying this within your footnotes.

Financial Statements for the Nine Months Ended June 30, 2011

General

68. Please apply all of our comments, to the extent they are applicable, to your interim financial statements.

Note 5. Related Party Transactions, page F-32

69. We read on page 125 that you provide firm storage services utilizing 100% of the storage capacity at your Bath NGL storage facility to an affiliate, Inergy Propane, under a contract entered into in March 2011. Please ensure that your related party footnote provides all disclosures required by ASC 850-10-50-1 and tell us how you considered the guidance in Rule 4-08(k) of Regulation S-X.

Note 6. Subsequent Events, page F-33

70. We note that on July 13, 2011, you closed on your previously announced acquisition of the Seneca Lake natural gas storage facility and two related pipelines for approximately \$65 million from New York State Electric & Gas Corporation. Please provide us with your analysis of whether this is an acquisition of a business or an acquisition of assets, and revise your footnote to more clearly explain your accounting for this acquisition.

Item 17. Undertakings, page II-3

71. Please include the undertaking required by Item 512(a)(5)(ii) of Regulation S-K.

Signatures, page II-5

72. Please clarify whether you currently have any directors. If so, please revise to have a majority of your directors or persons performing similar functions sign the registration statement. Please see Instruction 1 to the Signatures section of Form S-1.

Index to Exhibits, page II-6

73. Please file your articles of incorporation and bylaws as currently in effect. Please see Item 601(b)(3)(i)-(ii) of Regulation S-K.
74. Please file a form of common unit certificate. Please see Item 601(b)(4) of Regulation S-K.
75. Please file your revolving credit facility as an exhibit or tell us why it is not appropriate to do so. Please see Item 601(b)(10) of Regulation S-K.

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 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/ Catherine T. Brown for

Mara L. Ransom
Assistant Director

cc: Laura Ozenberger
Inergy, L.P.

Gillian Hobson
Vinson & Elkins LLP