



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

October 2, 2007

Via U.S. mail and facsimile

Mr. Val John Christensen
Executive Vice President, General Counsel and Secretary
EnergySolutions, Inc.
423 West 300 South, Suite 200
Salt Lake City, UT 84101

**Re: EnergySolutions, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed September 11, 2007
File No. 333-141645**

Dear Mr. Christensen:

We have reviewed your amended filing and your response and have the following comments. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Summary Historical and Unaudited Pro Forma Financial Data, page 10

1. We note your response to prior comments 6 and 10 regarding your combined successor and predecessor periods for fiscal year 2005. We reiterate our prior comments. Generally accepted accounting principals do not allow for the combining of these periods and as such we continue to object to your presentation. As previously indicated, we believe that the most appropriate presentation within MD&A is a brief discussion of the historical results of the predecessor and successor so that you comply with Item 303 of Regulation S-K and a discussion of pro forma sales, cost of sales and gross profit for the year ended December 31, 2005 as compared to the years ended December 31, 2006 and 2004.
2. We note your response to prior comment 7 and we continue to have concerns regarding the presentation of Adjusted EBITDA as a performance measure. Question 8 of the SEC "Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures" states that while there is no per se prohibition against

removing a recurring item, companies must meet the burden of demonstrating the usefulness of any measure that excludes recurring items, especially if the non-GAAP financial measure is used to evaluate performance. Given the nature of the recurring items you are removing, it does not appear that your non-GAAP measure complies with Item 10(e). Specifically:

- You have not demonstrated how the elimination of the accretion of the D&D liabilities, especially given the nature of your business, provides investors with a useful measure of your performance. It is unclear to us how the elimination of charges related to the estimated present value of your future obligations related to your final capping, closure and post-closure monitoring activities at your Clive, Utah landfill, your final capping a closing activities of your South Carolina landfill and the costs related to the decontamination and decommissioning of your facilities and equipment in Tennessee and at certain customer sites which qualify as asset retirement obligations results in a useful measure of the Company's performance. Please revise accordingly.
- You have not demonstrated how the elimination of non-cash charges such as the impairment charges for the write-off of intangible assets provides a useful measure of performance. In this regard, we note that your operations benefited from your old name and the permits you previously acquired. In addition, given the significance of your intangible assets, we assume that these costs may recur in the future. Refer to Item 10(e)(1)(ii)(B) of Regulation S-K.
- You have not demonstrated how the elimination of sponsor fees provides a useful measure of performance. We note that the fees paid under the three separate advisory service agreements were for financial advisory, monitoring and oversight services. We assume that the services provided by the sponsors were reasonable and necessary and contributed to the Company's results of operations. We assume that notwithstanding the fact that these agreements will be terminated in connection with your IPO you will continue to incur similar costs in the future. We therefore do not understand how any performance measure that eliminates such charges presents a useful performance measure for investors.
- You have not demonstrated how the elimination of non-cash equity compensation provides a useful measure of performance. Specifically, you have not identified the different ways and reasons your share-based payments vary from your cash compensation or other operating expenses such that the elimination of non-cash compensation provides a useful measure of performance.

- In your discussion of the limitations of EBITDA and Adjusted EBITDA, you have not identified each item that you have eliminated and how you overcame the limitations caused by the elimination of each item as it relates to a performance measure. In this regard, we note that the elimination of each item creates its own limitations regarding the usefulness of your non-GAAP measure as a performance measure.
- We note that you do not use the exact same “Adjusted EBITDA” measure as those under in your credit facilities because that measure includes certain adjustments that you believe should not be included in evaluating your operating results. We do not disagree. However, for this same reason, we do not believe that you should refer to this measure as it relates to your credit facilities in your discussion of operating performance. In addition, Adjusted EBITDA appears to be a component of several of your financial ratio covenants. As such, if you believe that the financial ratios based on Adjusted EBITDA are covenants that are material to an investor’s understanding of your financial condition and/or liquidity you should disclose the ratios as calculated by the debt covenants and address each disclosure item set forth in Question 10 of the Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures. In this regard, we do not believe that it is appropriate to provide only one component (i.e. Adjusted EBITDA) of your financial ratios as this limited presentation does not convey to investors how well you are doing in relation to the stated ratios. In addition, any discussion of your financial ratios is more appropriately provided in the liquidity section of Management’s Discussion and Analysis.
- We note that you do not use the exact same “Adjusted EBITDA” measure as those under in your management incentive calculations because that measure includes certain adjustments that you believe should not be included in evaluating your operating results. We do not disagree. However, for this same reason, we do not believe you should indicate to investors Adjusted EBITDA is a useful performance measure because it serves as the basis for determining incentive compensation under your employment agreements. Any discussion of Adjusted EBITDA for the purposes of your employment agreements, to the extent material, should be discussed in the context of you Compensation Discussion and Analysis on pages 115 through 117.
- The presentation of EBITDA and Adjusted EBITDA for the predecessor periods implies that prior management managed and assessed the predecessor operations using these metrics. Since you have indicated that the predecessor’s management did not use these measures we continue to believe they should not be presented.

Unaudited Pro Forma Financial Information, page 42

Unaudited Pro Forma Balance Sheet, page 44

3. We note that your acquisition of RSMC is already reflected in your historical balance sheet. However, given its significance, please expand your disclosures to provide the following, as such information is not yet fully presented in your historical financial statements.
 - A schedule showing the calculation of the purchase price and its components, including its allocation. The following should be clearly identified:
 - Net tangible assets and liabilities acquired,
 - Identifiable intangible assets,
 - Fair value adjustments to net tangible and intangible assets and liabilities, and
 - Costs and fees of the acquisition
 - The significant adjustments to fair value and how they were determined should be disclosed.

Unaudited Pro Forma Income Statement, page 46

Note (e), page 48 and Note (j) on page 49

4. We note you are using assumed interest rates for your credit facility. Since actual interest rates can vary from those depicted, please disclose the effect on income of a 1/8 percent variance in interest rates.

Note (h), page 48

5. You indicate that your purchase price allocation is preliminary. Please expand your disclosures to provide a sensitivity analysis to highlight the effect of changes to (i) the amount of identifiable intangible assets recognized and (ii) their useful lives on your pro forma net income.

Note (i), page 48

6. Please tell us supplementally and expand footnote (i) to address the how the pension arrangements were restructured and what your basis was for determining that the restructuring was directly related to the acquisition. Please also address how the adjustment amounts were determined. In this regard, we note the

disclosures in Note 3 to RSMC's audited financial statements on page F-96 that RSMC recorded two adjustments which gave rise to an £8.0 million charge to the income statement. Please address how each of these adjustments is directly related to the acquisition.

Management's Discussion and Analysis, page 53

Results of Operations, page 60

7. We assume your columnar caption indicating that the years ended December 31, 2006 and 2004 are combined is incorrect. Please revise accordingly.

Six Months Ended June 30, 2007 compared to Six Months Ended June 30, 2006, page 61

8. We note that despite the fact that your revenue increased \$103 million, or 60%, for the six months ended June 30, 2007 over the six months ended June 30, 2006 and your interest expense decreased \$6.2 million for the six months ended June 30, 2007 over the six months ended June 30, 2006 your net income decreased \$15.2 million. Your discussion does not provide adequate insight as to why this is the case. At a minimum, please expand your discussion of cost of revenues and segment and corporate selling, general and administrative expenses to discuss these expenses as a percentage of revenues to provide better insight into the changes in these expenses apart from absolute dollar increases or decreases resulting from changes in revenues.

Contractual Obligations and Other Commitments, page 70

9. We note the disclosure under "Credit Facilities" on page 69. Please either provide a pro forma table reflecting the credit facilities or provide disclosure regarding the impact of the credit facilities on your contractual obligations.

Critical Accounting Policies – Compensation Expense, page 75

10. We note your response to prior comment 14 and have the following additional comments regarding your compensation related to the granting of your profit interest units.
 - As previously requested, please revise your disclosures to clearly identify the material assumptions used in determining the fair value of the units at each grant date and the reasons for changes in these underlying assumptions. Given the material non-cash equity compensation you have recognized we believe detailed information regarding how you determined the fair value of profit interests granted is material and necessary

information for your investors. Please provide this information within your critical accounting policy disclosures. We note however that this disclosure should be expanded to include the underlying assumptions regarding for each grant date similar to what you have provided supplementally for your June 30, 2006 grant date.

- We do not understand why disclosing disaggregated fair value per unit of profit information would not be meaningful information to investors in your common stock. In this regard, please clarify whether the profit interest units will be converted into common stock of EnergySolutions, Inc. If so, we believe that this information, along with the conversion terms of each class of profit interest units, is necessary for an investor's analysis of the reasonableness of management's estimated fair value of your historical equity transactions in light of your estimated IPO price. Please provide these disclosures.

Energy Solutions, LLC Financial Statements for the Year Ended December 31, 2006

General

11. We note your response to prior comment 21. As previously requested, please provide this information in your filing. As we also previously indicated, we believe this information may be best disclosed in the charts to your corporate structure on pages 35 and 36.

Note 2 – Summary of Significant Accounting Policies – Revenue and Cost of Revenues, page F-4

12. We note your response to prior comment 23. Please revise your critical accounting policies for fixed-priced contracts to include the information provided in the first, second and fourth paragraphs of your response.

Note 3 – Acquisitions, page F-15

13. We note your response to prior comment 26. We note that your acquisitions of Duratek and Envirocare resulted in the allocation of a significant amount of the purchase price to goodwill and only a relatively minor amount of the purchase price to permits and licenses. As such, please provide us with a more comprehensive discussion of why you believe that it is appropriate determine the fair value of these acquired intangible assets using the replacement cost method. In this regard, we note that you indicate that "Although difficult, these permits and licenses can be obtained by another market participant..." Please provide us more insight into this statement. Specifically address how difficult the process is

to obtain these permits and licenses and the probability that another market participant could obtain these permits and licenses. Although we note your belief that applying the replacement cost methodology may be done with more precision than the excess earnings or other fair value methodologies, it is unclear that replacement cost is a reliable measure of fair value for these assets. Please also provide us with a copy of your valuation report.

14. We note your responses to prior comment 28 and 29. You indicate that the cash flows related to long-term customer contracts were projected and used in your fair value analysis of the overall customer relationship. You further indicate that two primary methodologies were utilized in the valuation of customer relationships depending on the characteristics of the customer. Those methodologies were the “With and Without” DCF approach and the “Excess Earnings” approach. We have the following comments in this regard. Please be as detailed as necessary for us to understand the appropriateness of the methodologies you utilized and as well as the appropriateness of the assumptions underlying those methodologies. Please provide us with a copy of your valuation report.

- Quantify the fair value of the customer relationships determined by the “With and Without” approach versus the “Excess Earnings” approach.
- Identify the characteristic(s) of the customers that led you to use the “With and Without” DCF approach versus the “Excess Earnings” approach.
- Identify the nature of the long-term customer contracts for which the customer relationship fair value was determined using the “With and Without” DCF approach. In this regard, it is unclear to us how the cash flows of long-term customer contracts are taken into account in this approach. Please quantify the value of these contracts.
- Tell us more about the “Excess Earnings” method. It is unclear whether you have separately identified the cash flows related to the long-term customer contracts in place as of the date of acquisition.

Note (16) Segment Reporting and Business Concentrations, page F-27

15. You indicate in Note 7 to your six months ended June 30, 2007 interim financial statements that as of result of acquiring RSMC you began reporting results from your operations outside North America in a new International segment. We also note that you had operations outside North American prior to the acquisition of RSMC in June 2007. Please revise to restate your historical segment information to reflect your new reporting structure or clarify why it is impractical to do so. Please refer to paragraphs 34 and 35 of SFAS 131 for disclosure requirements.

Energy Solutions, LLC Financial Statements for the Six Months Ended June 30, 2007
Note (5) Senior Credit Facilities, page F-37

16. We note that you are required to make mandatory quarterly repayments in addition to the scheduled quarterly payments. Based upon the \$7.631 million current portion of long term debt recorded as of December 31, 2006 and June 30, 2007 it is unclear that these additional mandatory quarterly payments have been reflected. Please revise your disclosure to clarify how these additional payments are taken into consideration in determining the current portion of your long-term debt.

Reactor Sites Management Company Limited Financial Statements

Note (1) Summary of Significant Accounting Policies (a) Description of Business and Basis of Presentation, page F-89

17. Please expand your disclosures to better clarify the nature of the relationships between Magnox Electric Limited (Magnox), Energy Sales and Trading Limited (ESTL) and Reactor Sites Management Company Limited (RSMC) such that those entities are appropriately combined for financial statement purposes. In this regard, provide us additional information regarding ESTL as you do not appear to have mentioned this entity in your July 27, 2007 correspondence. Also, clarify what you are trying to convey in the third paragraph.
18. You indicate that no interest or cash has been allocated to the business. Expand your disclosure to clarify the bases for the lack of such allocations.

Combined Income Statements, page F-86 and Note (3) Restructuring of Pension Arrangements, page F-96

19. We note that you have reflected the pension related restructuring costs outside of cost of revenues. Given the nature of these charges and your statement on page 57 that you include all of the costs associated with your Magnox Electric site employees and subcontractors in cost of revenues provide your basis for this classification.

Board of Directors, page 113

20. We note that the board of directors is currently composed of 7 directors, none of whom is independent. We also note that you intend to appoint three independent directors and that you expect the board of directors to be composed of 9 directors at that time. Please disclose, if known at this time, which of the current directors will not continue to serve on the board of directors.

Mr. Val John Christensen, Esq.
EnergySolutions, Inc.
October 2, 2007
Page 9

Exhibit 5.1

21. Please advise us as to whether the registered shares that may be sold by the selling stockholder are currently issued and outstanding. If so, please have counsel revise its opinion in the second to last paragraph to state whether these shares are validly issued, fully paid and non-assessable.

* * * *

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with the amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing the amendment and responses to our comments.

You may contact Jeanne Baker, Assistant Chief Accountant, at (202) 551-3691 if you have questions regarding comments on the financial statements and related matters. Please contact Andrew Schoeffler, Staff Attorney, at (202) 551-3748 or, in his absence, the undersigned at (202) 551-3767 with any other questions.

Sincerely,

Jennifer Hardy
Legal Branch Chief

cc: Mr. Boris Dolgonos, Esq.
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