Advanced Emissions Solutions, Inc.
Form 10-K
February 29, 2016
United States
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2014
or
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission File Number: 000-54992

Advanced Emissions Solutions, Inc.
(Name of registrant as specified in its charter)

Delaware	27-5472457
(State of incorporation)	(IRS Employer Identification No.)

9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch CO, 80129
(Address of principal executive offices) (Zip Code)
(Registrant's telephone number, including area code): (720) 598-3500
Securities registered under Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.001 par value	None

Securities registered under Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ¨ Yes x No
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. ¨ Yes x No
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ¨ Yes x No
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ¨ Yes x No
Indicate by check mark if disclosure of delinquent filers in response to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	¨	Accelerated filer	x
Non-accelerated filer	¨	Smaller Reporting Company	¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act.) ¨ Yes x No

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately $207,838,774 based on the last reported bid price of the Common Stock on the OTC Pink Tier on June 30, 2015. The number of shares outstanding of the registrant's Common Stock as of February 18, 2016 was 22,006,150.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

Class	February 18, 2016
Common Stock, $0.001 value	22,006,150

Documents Incorporated By Reference

None

ADVANCED EMISSIONS SOLUTIONS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2014

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Explanatory Note

This Annual Report on Form 10-K for the year ended December 31, 2014 filed by Advanced Emissions Solutions, Inc. together with its consolidated subsidiaries (collectively, “ADES” or the “Company,” or “we,” “us” or “our” unless the context indicates otherwise) includes the restatement of certain of our previously filed consolidated financial statements and data as explained herein. It also amends previously filed disclosures, including those for management’s discussion and analysis of financial condition and results of operations, as well as other disclosures, for certain periods presented in this Annual Report on Form 10-K. Accordingly, this filing includes more information than would routinely be included in an Annual Report on Form 10-K, in order to provide stockholders a composite presentation of information for prior periods during which we were not making periodic filings with the Securities and Exchange Commission ("SEC"). In addition, because of the changes we have made in our business since the end of 2014, the information relating to our business and related matters include certain information for periods after December 31, 2014.

Restatement of Financial Statements

Background

In early 2014, during the course of the audit of our financial results for the year ended December 31, 2013, we and our then engaged auditors, identified potential errors related to revenue recognition. In the process of reviewing revenue recognition, we also identified various other accounting errors. As a result, the Company did not file an Annual Report on Form 10-K for the fiscal year ended December 31, 2013. In April 2014, we determined that quarterly information previously filed within the year ended December 31, 2013 should not be relied upon, and that the years of 2011 and 2012 would need to be re-audited. After further analysis of accounting matters, in August 2014, we determined that certain material errors were included in our previously reported financial statements, and that financial statements as of and for the years ended December 31, 2011 and 2012 should not be relied upon.

Restatement Adjustments

Based upon our internal reviews of various accounting transactions and matters, and the associated re-audits of prior year financial statements, the following contains a summary of the errors that have been corrected and identifies certain accounts and transactions that have been restated. All information included in this section is qualified in its entirety by reference to the Consolidated Financial Statements and related footnotes included in this Annual Report on Form 10-K filing.

- Deconsolidation of Clean Coal Solutions, LLC ("CCS") - The Company has historically consolidated the financial results of CCS with the Company’s financial statements, consistent with the consolidation guidance in effect at the time of formation of CCS in 2006. Prior to May 2011, the Company held a 50% equity interest in CCS; and subsequent to that date, the Company's equity interest was reduced to 42.5% via a partial sale of its equity interests to GSFS Investments I Corp. (“GSFS”) an affiliate of The Goldman Sachs Group, Inc. ("GS"). Financial Accounting Standard ("FAS") 167 became effective on January 1, 2010 (subsequently codified to Accounting Standard Codification ("ASC") 810, Consolidation) and changed the accounting guidance for entities such as CCS that, under the applicable guidance, are defined as Variable Interest Entities ("VIE's"). In November 2014, we determined that we do not have (and from the period of January 2010 through November 2014 did not have) the power to direct the activities that most significantly impact the economic performance of CCS; therefore, the Company was not the primary beneficiary under ASC 810, and it was not appropriate for the Company to consolidate the financial results of CCS, as of January 1, 2010 and thereafter. As a result, the Company has deconsolidated CCS and made other corrections required to properly reflect CCS transactions under the equity method of accounting (see discussion below). The cumulative effect of the deconsolidation adjustments decreased the Company's consolidated accumulated deficit by $0.9 million and increased additional paid in capital ("APIC") by $30.0 million as of December 31, 2011. See additional information related to CCS in Note 8 of the Company's Consolidated Financial Statements and related footnotes included in this Annual Report on Form 10-K filing.
- Equity method of accounting - Due to the determination that CCS should be accounted for under the equity method of accounting, certain transactions that were previously eliminated in the Company’s consolidated financial statements require accounting recognition under the equity method of accounting. Additionally the Company identified other adjustments unrelated to the deconsolidation determination including distributions

from CCS being classified as other income rather than a reduction of the equity method investment and accretion on a preferred equity interest at CCS not being recognized. The cumulative effect of all such adjustments totaled $12.4 million at December 31, 2011 and are reflected as a decrease to the 2012 opening balance of the accumulated deficit in our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K. As discussed above, the Company deconsolidated CCS and recognized a $30.0 million gain on a distribution from CCS related to a partial sale of its equity interests to a third party. The cumulative effect at December 31, 2011 of the recognition of the gain decreased additional paid in capital ("APIC") by $19.6 million, comprised of the $30.0 million gain, offset by the reversal of a previously recognized

deferred tax benefit of $10.4 million. In addition, these errors resulted in an increase to the previously reported December 31, 2012 net loss of $1.4 million, included within Note 2 of our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K.

- Revenue recognition - The Company historically recognized equipment sales revenue related to certain long term equipment construction projects ("equipment construction projects") under the percentage of completion method using engineering labor hours. During 2014 and 2015, the Company determined that, under applicable accounting guidance, any percentage of completion method that purports to use labor hours should also include the labor hour information for significant subcontractors. The Company determined that labor hour information for significant subcontractors did not exist for the restatement period related to its activated carbon injection ("ACI") equipment construction projects; further the Company did not have sufficient information or controls related to its dry sorbent injection ("DSI") construction projects during the restatement period that would allow it to properly capture labor hours for such systems. The Company also determined that it did not have sufficient information and controls to account for either ACI or DSI equipment construction contracts using a cost-to-cost percentage of completion method based on costs incurred to date compared with total estimated contract costs. Therefore, the Company has corrected the accounting for all such equipment construction contracts by recognizing the revenue from such contracts under the completed contract method. The Company also previously recognized cost reimbursements from the Department of Energy ("DOE") as revenue. The Company determined that it should have recognized these reimbursements as contra expense within the Research and Development line item in the Consolidated Statements of Operations. These DOE revenue and cost reimbursement adjustments did not impact net income. The cumulative effect of these adjustments totaled $3.6 million at December 31, 2011 and were reflected as an increase to the 2012 opening balance of the accumulated deficit in our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K. Additionally, these errors resulted in a decrease to the previously reported December 31, 2012 net loss of $0.8 million, included within Note 2 of our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K. Additionally, the Company identified and corrected elimination entries regarding the consolidation of the financial results of BCSI, LLC within the Company's financial statements for the first three quarters of 2013, which previously did not properly eliminate revenue and expenses for combined contracts, fulfilled by both BCSI, LLC and ADA-ES, Inc., wholly-owned subsidiaries of the Company. The adjusting entries are discussed within Note 2 of our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K.

- Settlement and royalty indemnity accounting - As previously disclosed, the Company entered into settlement agreements with various third parties during 2011 related to litigation regarding one of the Company's equity method investments, whereby the Company paid a lump-sum payment totaling $33 million in the third quarter of 2011. In addition, the Company agreed to pay an additional $7.5 million over a three-year period with payments commencing in the second quarter of 2012, payable in three installments without interest, of $2.5 million. The Company also relinquished its investment in the equity method entity and was also required to pay additional damages in the form of future royalty payments related to certain future revenues generated from the equity method investment through the second quarter of 2018 (the "Royalty Award"). The Company recognized the expenses related to the lump-sum payment of $33 million, the additional $7.5 million payment, and the Royalty Award expenses related to the years ended December 31, 2010 and 2011 as previously reported in its Annual Report on Form 10-K for the year ended December 31, 2011. Subsequent to that date, the Company recognized expenses related to the Royalty Award payments as they were incurred. During 2015, the Company determined that it should have recognized the entire liability and related expenses for the estimated Royalty Award during the year ended December 31, 2011 as the loss contingency met the criteria to be recorded because the Royalty Award was both known and estimable. The cumulative effect of this adjustment totaled $25.9 million at December 31, 2011 and was reflected as an increase to the 2012 opening balance of the accumulated deficit in our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K. Additionally, subsequent periods have been adjusted to exclude any Royalty Award expense that was originally recorded in such periods which resulted in a decrease to the previously reported December 31, 2012 net loss of $2.3 million, included within Note 2 of our Consolidated Financial Statements in Item 8 of this Form 10-K. See Note 15 of the Consolidated Financial Statements included in this Annual Report on Form 10-K filing for additional details related to these matters.

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- Other adjustments - The Company identified other adjustments related to the Company's prior accounting including, stock based compensation, warranty reserves, interest liabilities under Internal Revenue Code 453A and various other adjustments. The cumulative effect of these adjustments totaled $0.2 million at December 31, 2011 and were reflected as an increase to the 2012 opening balance of accumulated deficit in our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K. In addition, these errors, along with errors related to the Company's 2012 acquisition discussed in Note 9 of our Consolidated Financial Statements, property and equipment, intangible assets and various other adjustments, resulted in an increase to the previously reported December 31, 2012 net loss of $1.8 million, included within Note 2 of our Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K. The following table presents the components included within the other adjustments category, and the related cumulative effect of the prior period adjustments to stockholders' deficit at December 31, 2011 (Restated):

	Common Stock			
(in thousands, except share data)	Shares	Amount	Additional Paid-in Capital Impact	Accumulated Deficit Impact
Stock based compensation	—	$—	$290	$(290)
Warranty reserves	—	—	—	(526)
453A interest	—	—	—	698
Other, net	—	—	(100)	(104)
Total	—	$—	$190	$(222)

Cumulative Effect of Prior Period Adjustments

The following table presents the cumulative effect of the prior period adjustments to stockholders' deficit at December 31, 2011 (Restated). The previously reported December 31, 2011 balances have also been adjusted to reflect the two-for-one stock split of the Company's common stock, effective as of March 14, 2014. The previously reported December 31, 2011 balances have also been adjusted to reflect the reorganization of the Company that occurred, effective July 1, 2013, which resulted in Advanced Emissions Solutions, Inc., a Delaware company incorporated in 2011, replacing ADA as the publicly-held corporation and ADA becoming a wholly-owned subsidiary of Advanced Emissions Solutions, Inc. Due to Delaware law, ADES is required to have par value assigned to its common stock whereas, ADA, a Colorado corporation, has no par value assigned to its common stock.

	Common Stock				
(in thousands, except share data)	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances, December 31, 2011, as previously reported	19,992,288	$20	$63,165	$ (66,694)	$ (3,509)
Deconsolidation	—	—	30,000	930	30,930
Equity method accounting	—	—	(19,600)	12,366	(7,234)
Revenue recognition	—	—	—	(3,648)	(3,648)
Settlement and royalty indemnity	—	—	—	(25,891)	(25,891)
Other	—	—	190	(222)	(32)
Balances, December 31, 2011 (Restated)	19,992,288	$20	$73,755	$ (83,159)	$ (9,384)

In connection with the deconsolidation adjustments, we also eliminated temporary equity and noncontrolling interest balances related to CCS of $60.0 million and $25.9 million, respectively, that are not shown in the above table.

Restated Information

We have corrected the above described errors and amended or restated the following financial information in this Annual Report on Form 10-K as of and for the periods indicated (collectively, the "Restated Periods"), noted in the table below.

Type of Financial Information	Date or Period
Consolidated statements of operations, stockholders' deficit and cash flows	Year ended December 31, 2012
Selected financial data	Years ended December 31, 2012, 2011 and 2010
Unaudited quarterly financial information	Quarters ended September 30, 2013, June 30, 2013 and March 31, 2013
Management's discussion and analysis of financial condition and results of operations	As of and for the year ended December 31, 2012

We believe that presenting all of the amended and restated information for the Restated Periods in this Annual Report on Form 10-K allows investors and others to review all pertinent data in a single presentation. We have not filed and do not intend to file (i) amendments to any of our previously filed Annual Reports on Form 10-K or Quarterly Reports on Form 10-Q for the periods affected by the restatements or corrections of our financial statements, (ii) an Annual Report on Form 10-K for the fiscal year ended December 31, 2013 or (iii) Quarterly Reports on Form 10-Q for the three months ended March 31, June 30 and September 30, 2014. Accordingly, investors and others should rely only on the financial information and other disclosures regarding the Restated Periods in this Annual Report on Form 10-K, and in future filings with the SEC (as applicable), and not on any previously issued or filed reports, earnings releases or similar communications relating to these periods.

PART I
Item 1. Business
Reorganization
ADA-ES, Inc. (“ADA”), a Colorado corporation, was incorporated in 1997. Pursuant to an Agreement and Plan of Merger ("Reorganization"), effective July 1, 2013, Advanced Emissions Solutions, Inc. (“ADES”), a Delaware company incorporated in 2011, replaced ADA as the publicly-held corporation and ADA became a wholly-owned subsidiary of ADES. Each outstanding share of ADA’s common stock automatically converted into one share of common stock of ADES and the shareholders of ADA became stockholders of ADES on a one-for-one basis, holding the same number of shares in and the same ownership percentage of ADES after the reorganization as they held in and of ADA prior to the reorganization. ADES’s Second Amended and Restated Certificate of Incorporation authorizes the issuance of 100,000,000 shares of common stock, par value per share of $0.001 and 50,000,000 shares of preferred stock, par value per share of $0.001. ADES’s common stock became listed on the NASDAQ Capital Market under “ADES”, ADA’s previous symbol, and ADA’s stock ceased trading on the NASDAQ Capital Market on July 1, 2013. Since the Company was not able to timely file complete financial statements with the Securities and Exchange Commission, ADES's common stock was delisted from the NASDAQ Capital Market on March 30, 2015 and began trading on the OTC Pink® Marketplace - Limited Information Tier under the trading symbol "ADES". For further information on the reorganization, see Note 21 of the Consolidated Financial Statements of this Annual Report on Form 10-K. Hereinafter, this Annual Report on Form 10-K will be referred to as the "Form 10-K".

As this filing pertains to the year ended December 31, 2014, the terms the “Company”, “we”, “us” and “our” means ADA for the periods through and including the period ended June 30, 2013 and ADES for the dates or periods after July 1, 2013. As of December 31, 2014 ADES's wholly-owned subsidiaries included:

- ADA
- BCSI, LLC ("BCSI")
- Advanced Clean Energy Solutions, LLC ("ACES")
- ADEquity, LLC ("ADEquity")
- ADA Environmental Solutions, LLC (“ADA LLC”)
- ADA Intellectual Property, LLC (“ADA IP”)
- ADA-RCM6, LLC (“ADA-RCM6”)

None of ACES, ADEquity, ADA IP or ADA-RCM6 had operations in 2013 or earlier. ADA LLC ceased operations in 2012.

Subsequent to December 31, 2014, the Company's wholly-owned subsidiaries also include ADA Analytics, LLC and ADA Analytics Israel Ltd. (collectively "ADA Analytics"). In August 2015, the Company’s management approved an action to wind down the operations of ADA Analytics. The Company intends to address the immediate United States analytics market using alternative services and capabilities. Refer to Note 9 of our Consolidated Financial Statements in Item 8 of this Form 10-K.

ADES and its subsidiaries have continued to conduct business in substantially the same manner as conducted prior to the reorganization.

Additionally, we are an investor in Clean Coal Solutions, LLC (“CCS”), Clean Coal Solutions Services, LLC ("CCSS") and RCM6, LLC ("RCM6"), whose performances significantly impact our financial position and results of operations as these investments are accounted for under the equity method of accounting. Currently, we hold equity interests of 42.50%, 50.00%, and 24.95% in CCS, CCSS, and RCM6, respectively. All of these respective equity method investments are material to our operations and their financial statements are included in Item 15 in this Form 10-K

filing.

Business Purpose and Strategy

ADES serves as the holding entity for a family of companies that provide emissions solutions to customers in the coal-fired power generation, industrial boiler and cement industries. Through its subsidiaries and joint ventures, the Company is a leader in emissions control technologies and associated equipment, chemicals, and services. Our proprietary environmental

technologies enable our customers to reduce emissions of mercury and other pollutants, maximize utilization levels and improve operating efficiencies to meet the challenges of existing and pending emission control regulations.
Our major activities include:

- Development and sale of technology to reduce emissions and improve operations of coal-fired boilers used for power generation and industrial processes;
- Development and sale of equipment, consulting services, specialty chemicals and other products designed to reduce emissions of mercury, acid gases, metals and other pollutants and the providing of technology services in support of our customers' emissions compliance strategies;
- Research and development of technologies and other solutions to advance cleaner energy and to help our customers meet existing and future regulatory and business challenges, including Carbon Dioxide (“CO_2”) emissions control technologies and technologies designed to reduce other emissions related to power generation or industrial processes;
- Through CCS, an unconsolidated entity, reduction of mercury and nitrogen oxide ("NO_X") emissions at select coal-fired power generators, through the burning of Refined Coal ("RC") produced by RC facilities placed in service by CCS. Additionally, we benefit from the tax credits generated by the production of RC by retaining the credits or selling or leasing the pertinent RC facilities to tax equity investors. See the separately filed financial statements of CCS and the other related RC entities within Item 15 of this Form 10-K.

Operating Locations

The Company has domestic and international operations where personnel are based. The domestic operations are located in Colorado and Pennsylvania. The Pennsylvania location was closed at the end of 2015, with certain wind-down activities remaining through early 2016. The international operations are not material to the Company's total revenues or long-lived assets and were closed at the end of 2015. CCS and the related operating entity CCSS have operations within 12 states across the United States.

Markets for Our Products and Services

We provide environmental control equipment, chemicals and technologies to our primary market that consists of approximately 850 coal-fired electrical generation units and approximately 600 coal-fired boilers that produce steam for industrial processes and heating.

The share of coal-fired power generation as a percentage of U.S. electricity generation is expected to continue to decrease over the coming years due to low projected natural gas prices, increasingly stringent environmental regulations, and increased deployment of renewable power generating assets. However, we believe that coal-fired power generation will remain a significant component of the U.S. power generation mix for many years given its abundance, affordability, reliability and availability as a domestic fuel source. The Energy Information Administration ("EIA") projects that coal will provide 26% of electricity generation in 2040. The primary drivers for many of our products and services are environmental laws and regulations impacting the electric power generation industry and other coal users. These regulations include the Mercury and Air Toxics Standards (“MATS”), a federal regulation that requires all of the existing fleet and all new coal-fired plants to control mercury emissions, acid gases, and particulate matter, the Maximum-Achievable Control Technology (“MACT”) standards for industrial boilers (“IBMACT”) and the cement industry, as well as various state regulations and permitting requirements for coal-fired power plants. In addition to the federal MATS rule, certain states have their own mercury rules that are similar to, or more stringent than MATS, and many plants around the country have agreed to consent decrees which require pollution controls that in some cases are more restrictive than the existing regulations. We continue to believe the MATS and MACT rules, as well as certain state regulations, create a large market for refined coal and emission control products. Additionally, the proposed, pending, and future rules relating to CO_2 emissions, effluent discharge, coal combustion residuals, and other pollutants are driving and we expect will continue to drive future markets for which we may develop products and solutions.

In general, coal is low cost, stable, and a reliable source of domestic energy that, unlike many other forms of energy, can be easily stored in large quantities. We believe coal is critical to ensuring the U.S. has a secure and stable source of energy. With current environmental regulations, we believe it is unlikely that any new coal plants will be financed or constructed, which suggests that the average plant age in 2040 will be 66 years old. With the continued retirement

of the less efficient and generally smaller coal plants switching to other fuels, and the influx of intermittent generation such as solar and wind, we believe coal-fired generation will come to be seen as a complement to the other fuel sources to provide base-load electricity to users and to support the electric grid. This belief is reflected in the Clean Power Plan recently published by the U.S. Environmental Protection Agency ("EPA"), which has been stayed by the United States Supreme Court. This dynamic will likely push coal-fired generators to increase their focus on maintaining regulatory compliance in the most efficient and cost

effective manner, while also responding to intermittent generating sources. As coal plants age and they are dispatched with more variability rather than at base-load levels as they were designed, we expect that increased support will be required to assure reliable operation and continued compliance with environmental regulations. We expect that plants and owners will require additional support as their aging workforce retires and on-site expertise is no longer as available as utilities allocate resources elsewhere in their power generation fleets.

While the future is uncertain, we expect this will continue to drive a shift in utilities' purchasing desires towards variable cost products and integrated solutions with low capital expenditure requirements and away from large capital equipment and other fixed cost solutions that are less likely to have costs recovered given the uncertain operating life of many coal plants. We also expect to see a continued trend towards outsourcing various aspects of plant operations to third party vendors and away from having integrated plant staff.

We believe it is likely that many companies that are in the U.S. coal-related businesses, such as coal mines, coal-fired power generators and coal-centric large equipment providers will struggle to adapt to the changes expected in the coming years. However, we see opportunities for companies that can offer their customers creative and cost effective solutions that help the U.S. coal-related businesses meet regulatory compliance, improve efficiency, lower costs and maintain reliability.

As of December 31, 2014 our products, services and RC technology licenses available to coal-fired electrical generators requiring solutions to assist with compliance with emissions standards, included:

- Equipment:

Low capital expenditure (“CAPEX”) mercury control technologies and systems such as Activated Carbon Injection (“ACI”) systems, that effectively reduce mercury emissions over a broad range of plant configurations and coal types; and

Dry Sorbent Injection systems (“DSI”) to reduce emissions of Sulfur Dioxide ("SO_2") and other acid gases such as Sulfur Trioxide ("SO_3") and Hydrogen Chloride ("HCl").

- RC technology licenses:

Our patented CyClean™ technology, a pre-combustion coal treatment process that provides electric power generators the ability to enhance combustion and reduce emissions of NO_X and mercury from coals burned in cyclone boilers; and

Our patented M-45™ and M-45-PC™ technologies, which are proprietary pre-combustion coal treatment technologies for circulating fluidized bed boilers and pulverized coal boilers, respectively.

- Chemicals and other:

Our M-Prove™ technology, which is also incorporated in our RC technologies, provides a cost effective alternative to other halogen-based, oxidation chemicals used to enhance removal of mercury emissions. M-Prove™ technology mitigates coal treatment corrosion risks to minimize maintenance and repair costs to enhance system reliability; and

Our RESPond™ liquid chemical additive is a highly effective ash resistivity modifier for power plants operating cold-side electrostatic precipitators. Unlike SO_3 solutions, the incumbent chemical being used to modify ash resistivity, the RESPond™ additive does not interfere with or reduce the effectiveness of activated carbon injected into the flue gas for purposes of reducing mercury emissions.

- Consulting services:

We provide general consulting services as requested by our customers related to emissions control.

Subsequent to December 31, 2014, newly launched products, in addition to those listed above, designed for both coal-fired electrical generators and other industries requiring solutions to assist with compliance with emissions standards, include:

- Equipment:
  - ADAir-Mixer™ in-duct technology alters flue gas flow to improve mixing and optimize particle dispersion to reduce sorbent consumption for DSI and ACI systems; and
  - ProRak™ mercury process analyzer provides real-time mercury emissions measurements that incorporate market leading continuous emissions monitoring systems ("CEMS").

- Consulting services:
  - We provide our ADA® Health Check services to review the operational performance and efficiencies of our customers' emissions control systems and provide recommendations for improvements; and
  - We provide CEMS Reliability Program services that provide expert evaluation of customers CEMS systems and remediation of any identified operating issues.

- Analytic services:
  - Predictive Emissions Monitoring ("PEMS") is a virtual mercury process monitor that provides continuous monitoring of mercury levels in flue gas without the need for dedicated mercury ("Hg") process hardware and technical resources.

Additionally, as of December 31, 2011, CCS, an unconsolidated entity in which we own a 42.5% equity interest, had built and placed into service a total of 28 RC facilities designed to produce RC at coal-fired power plants. Coal-fired power plants use RC as one of a portfolio of tools to help comply with MATS and other environmental regulations. These RC facilities produce RC that qualifies for tax credits under Section 45 of the Internal Revenue Code ("IRC"), including meeting the "placed in service" requirements (hereafter referred to as "placed in service"). The law that provides for IRC Section 45 tax credits substantially expires in December 2019 for two of CCS's RC facilities placed in service in 2009 and in December 2021 for 26 RC facilities built and placed in service in 2011. Once an RC facility is in operation, CCS may enter into contracts with tax equity investors to lease or sell the RC facility, which we refer to as an "invested" RC facility. RC facilities that are producing RC but CCS has not leased or sold are referred to as retained RC facilities ("retained") where by the tax benefits may be realized by the owners of CCS. As of December 31, 2014, 17 RC facilities were producing RC at utility sites with 12 invested and five retained. The remaining 11 RC facilities, although placed in service, were awaiting site selection or in various other stages of contract negotiation, permanent installation or beginning full-time operations. As of September 30, 2015, 17 RC facilities were producing RC at utility sites with 12 invested and five retained. A current tax equity investor has notified CCS that it will terminate the investment effective in April 2016 and CCS will seek a new tax equity investor for that RC facility. Of the remaining 11 RC facilities, four have been permanently installed and are ready to operate pending final commitments for the purchase or lease of such facilities by tax equity investors. The remaining facilities are awaiting site selection or in various other stages of contract negotiation, permanent installation or commissioning. Some of the remaining seven RC facilities are expected to produce RC in 2016. One of the invested facilities is owned by RCM6, of which the Company owns 24.95%.

Although we intend to utilize the tax credits generated by producing RC, it is also financially advantageous to lease or sell the RC facilities to tax equity investors. The tax equity investor for a particular RC facility pays the operating expenses of the RC facility and also pays CCS either an installment purchase price or lease rental fee, and in return accrues significant tax benefits, including IRC Section 45 tax credits. The Company benefits from equity income and distributions accruing through its investment in CCS. Tax equity investors, including the Company, may benefit from their investment through the realization of tax assets and credits from the production of RC. As of December 31, 2014 and 2013, respectively, the tax credits received under Section 45 of the IRC were $6.60 and $6.59 per ton of coal produced. The value of the Section 45 tax credits are adjusted annually based on inflation adjustment factors published in the Federal Register. As of December 31, 2014, we have received substantial tax credits and benefits from RC facilities operated for the benefit of CCS but have not yet been able to utilize tax benefits and credits from

the production of RC due to our operating losses. See Note 17 to our Consolidated Financial Statements for additional information regarding our deferred taxes.
The 17 RC facilities producing RC as of December 31, 2014 are operated by our 50% owned entity, CCSS under operating and maintenance agreements with the owners or lessees of the RC facilities.

Legislation and Environmental Regulations

Federal Mercury and Air Toxic Standards (“MATS”)

On December 16, 2011, the EPA issued the final MATS rule, which took effect on April 16, 2012. In light of legal challenges to the final rules, the EPA voluntarily stayed the effectiveness of the MATS rule on July 20, 2012 pending further reconsideration of the air pollution limits for new power plants until March 28, 2013 when the EPA finalized the MATS rule. The EPA structured the MATS rule as a MACT-based hazardous pollutant regulation applicable to coal and oil-fired Electric Utility Steam Generating Units (“EGU”), that generate electricity via steam turbines, which provides for, among other provisions, control of mercury and particulate matter, and control of acid gases such as HCl and other Hazardous Air Pollutants (“HAPs”). The EPA issued a final rule for new source standards on March 28, 2013. The MACT standards are also known as National Emission Standards for Hazardous Air Pollutants ("NESHAP").

The MATS rule for existing HAP sources establishes standards for certain HAPs emitted by coal and oil fired EGUs with a capacity of 25 megawatts or greater. According to our estimates the standard sets a limit that we believe requires the capture of up to 80-90% of the mercury in the coal burned in electric power generation boilers as measured at the exhaust stack outlet for most plants.

Unless an extension was obtained, existing HAP sources were required to comply with the MATS standards by April 2015. An authorized state permitting authority has the ability to grant HAP sources up to a one year extension, on a case by case basis, if such additional time is necessary for the installation of controls. HAP sources may also request an additional year extension by obtaining an Administrative Order ("AO") from EPA. According to our estimates based on conversations with plant operators and industry estimates, we believe that MATS compliance extensions were granted for more than 400 boilers. Some of these plants have announced retirement or are switching fuel from coal to natural gas, as described above, but we believe an opportunity to license our technologies and sell our products and services remains at a significant number of coal-fired boilers. Based on EPA compliance data available in 2015, approximately 262 affected units were reporting Hg emissions, as required without an extension. We are aware of AO extensions having been granted to units. We expect that all other units still in operation after April 2016 will be required to comply with MATS emission limits and will have implemented necessary technologies to comply with the environmental regulations.

On November 25, 2014, the Supreme Court agreed to review a decision by the U.S. Court of Appeals for the District of Columbia Circuit ("DC Circuit") on April 15, 2014 to uphold MATS in a lawsuit brought by the Utility Air Regulatory Group, the National Mining Association and a group of 21 states. The Supreme Court considered whether the EPA unreasonably refused to consider costs in determining whether regulation of HAPs emitted by electric utilities is appropriate. The Supreme Court heard arguments in March 2015. On June 29, 2015, the Supreme Court ruled that the EPA must reconsider the MATS rules as it did not properly take into account the costs of the regulations before deciding to adopt them as an "appropriate and necessary" regulation of EGUs. The decision remanded the case back to the D.C. Circuit. On November 20, 2015, the EPA proposed a supplemental finding that consideration of cost does not alter the agency’s previous conclusion that it is appropriate and necessary to regulate coal- and oil-fired EGUs under section 112 of the Clean Air Act ("CAA"). On December 1, 2015, the EPA submitted the proposed supplemental finding for public comment. The proposed supplemental finding does not affect power plants’ compliance obligations or the steps that many plants have taken and continue to make to meet those obligations by installing controls and technologies to reduce toxic air emissions. On December 15, 2015 the D.C. Circuit issued a unanimous order rejecting a motion by multiple utilities and states seeking to halt the MATS program while the EPA completes its cost analysis, which is expected in April 2016. On February 23, 2016, twenty states petitioned the Supreme Court to stay MATS during this period, but no determination has yet been made.

State Mercury and Air Toxics Regulations Affecting EGUs

In addition to federal MATS rules, certain states have their own mercury rules that are similar to, or more stringent than, MATS, and power plants around the country are subject to consent decrees that require the control of acid gases and particulate matter, in addition to mercury emissions. Seventeen states have mercury-specific rules that affect more than 260 generating units.

Industrial Boilers MACT

On December 20, 2012, the EPA finalized a specific set of adjustments to the MACT-based air toxics standards originally finalized in March 2011 for industrial boilers, including mercury, particulate matter, and acid gas emission

limits. Existing boilers must comply by January 31, 2016. Non major source boilers (area sources) and major source boilers that began operations on or after June 4, 2010 were required to be compliant by March 21, 2014 and January 31, 2013, respectively. An

authorized state permitting authority has the ability to grant sources up to a one-year extension, on a case by case basis, if such additional time is necessary for the installation of controls.

The EPA estimates that approximately 600 coal-fired boilers will be affected by the industrial boiler MACT ("IBMACT"), in industries such as pulp and paper.

On December 1, 2014, the EPA announced the reconsideration of the IBMACT and proposed amendments to the version published January 31, 2013, representing technical corrections and clarifications. The proposed amendments do not affect the applicability of the final rule.

Cement MACT

In addition to issuing standards covering electric power generators, the EPA has developed a MACT-based mercury emissions regulation for the Portland cement industry through amendments to the National Emission Standards for HAPs (the "Cement MACT"). The EPA published the final Cement MACT regulation on February 12, 2013 with compliance required by September 9, 2015.

An authorized state permitting authority has the ability to grant sources up to a one year extension, on a case by case basis, if such additional time is necessary for the installation of controls. The standards for new kilns apply to facilities where construction, modification, or reconstruction commenced after May 6, 2009. The Cement MACT requires, in part, cement plants to reduce 92% of mercury emissions and 83% of hydrocarbons emissions. The EPA estimated that the rule would affect 156 kilns operating as of 2013. In an analysis published in 2010, the EPA estimated that the industry average mercury emissions were 111 pounds per million tons of clinker, which is produced in the manufacture of Portland cement. The Cement MACT limits emissions to 55 pounds per million tons of clinker. The EPA identified activated carbon injection or wet scrubbers as options to meet mercury emission limits. Plants must also meet emissions limits of three parts per million for HCl. The EPA estimated that 120 existing kilns would require scrubbers to meet the proposed HCl standards and four could meet the standard using dry lime injection. The Company offers both ACI and DSI systems to help companies meet the regulation.

SO_2 and Particulate Matter

The EPA established National Ambient Air Quality Standards ("NAAQS") that have resulted in several rules including the Cross State Air Pollution Rule ("CSAPR"), which were designed to significantly improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states.

On July 6, 2011, the EPA finalized CSAPR and on November 21, 2014, following several court actions, the EPA realigned compliance deadlines as required by the DC Circuit. Currently, CSAPR Phase 1 implementation is scheduled for 2015 and 2016, with Phase 2 beginning in 2017. Implementation is achieved through establishing state-specific emission budgets. 28 states have been identified under CSAPR to limit SO_2 and NO_x emissions either year-round or during the summer time. Based on published emission data and announced coal plant retirements or announcements to repower plants with natural gas, we believe that most affected states will meet 2017 emissions budgets without new controls.

On August 10, 2015, the EPA finalized the NAAQS Data Requirements rule ("DDR") that addresses the need for additional air quality data in areas that do not have sufficient monitoring required to allow the EPA to carry out the 2010 revised SO_2 NAAQS ("2010 1-hour SO_2 NAAQS"). The DDR directs states and tribal air agencies to characterize current air quality in areas with large SO_2 sources (2,000 tons per year or greater). The DDR requires air agencies to establish ambient monitoring sites or conduct air quality modeling, and submit air quality data to the EPA or, establish federally enforceable emission limit(s) and provide documentation of the limit(s) and compliance to the EPA by 2017. The EPA will use this information for future designations under the 2010 1-hour SO_2 NAAQS. Of the areas that had sufficient air quality monitoring in place from 2009-2011 to be tested against the 2010 1-hour SO_2 NAAQS, the EPA designated 29 areas in 16 states as Non-attainment Areas. Those states submitted State Implementation Plans ("SIP") by April 4, 2015 demonstrating how the areas will meet the 2010 1-hour SO_2 NAAQS by July 15, 2018 (5 years after the non-attainment designation). Per the agreement between the EPA and the Sierra Club and National Resources Defense Council, which was accepted as an enforceable order by the Northern District of California on March 2, 2015 to resolve litigation concerning the completion of designations, the EPA must complete designations for all remaining areas in the country in up to three additional rounds: the first, by July 2, 2016, the second by December 31, 2017, and the final round by December 31, 2020. On April 23, 2014, the EPA recognized in a memorandum regarding guidance

for 1-hour SO_2 Non-attainment Area SIP Submissions that the emission control equipment used to comply with the EGU MATS and IB and Cement MACTS regulations will concurrently reduce SO_2 emissions. We expect that the SO_2 NAAQS will impact several plants in affected areas that have inadequate or nonexistent SO_2 controls installed. Some of these plants are expected to rely on DSI to meet control requirements.

In 1999, the EPA established the Regional Haze Rule ("RHR") to improve air quality in national parks and wilderness areas. States must meet requirements established in their specific Regional Haze Plan prior to 2018, with equipment typically installed by 2017, while meeting reasonable progress goals prior to that. In 2018 the state plans will be reevaluated and revised as necessary to set new progress goals and strategies to meet the goals. NO_X, SO_2 and particulate matter all can contribute to regional haze. Some of these plants may use the Company's services to help meet the limits imposed by the rules.

Effluent Limitation Guidelines and Coal Combustion Residuals

On September 30, 2015, the EPA set the first federal limits on the levels of toxic metals in wastewater that can be discharged from power plants. The final rule requires, among other things, zero discharge for fly ash transport water, and limits on mercury, arsenic, selenium, and nitrate from flue gas desulfurization ("FGD") wastewater (also known as "legacy wastewater"). Plants must comply with limits for legacy wastewater by November 1, 2018 with a possible extension to December 31, 2023 with state approval. Although halogens are not directly regulated in the effluent guidelines, some halogens may impact the effectiveness of biological wastewater treatment systems such are often used for selenium. On December 19, 2014, the EPA issued a final rule that implemented a set of requirements for the safe disposal of coal combustion residuals ("CCRE") that included regulations of fly ash as a solid waste and not a hazardous waste. The final rule affects both existing and new CCRs, including lateral expansions of any existing unit with respect to reducing the risk of catastrophic failure, protecting groundwater, operating criteria, record keeping, inactive units, state programs, and closure. We expect that these regulations and restrictions on CCRs including fly ash and liquid effluents will generate a continuous market beginning in the 2017 through 2018 time-frame for technologies and operating approaches to reduce liquid effluents and stabilize the resulting concentrated mixtures using fly ash. The Company is evaluating whether to develop new products to help plants comply with these rules and how these rules may affect current product offerings.

Additional Legislation and Regulations

On December 15, 2009, the EPA issued an endangerment finding that triggered a Clean Air Act requirement that the agency regulate CO_2 emissions from stationary sources such as power plants. The DC Circuit upheld the finding on June 26, 2012. As required by the Clean Air Act, on June 2, 2014, the EPA proposed rules to reduce Greenhouse Gases (“GHG”) from existing sources in states and, on October 28, 2014, a supplemental plan for Indian Country and U.S. Territories. Industry members and states have filed an extensive consolidated litigation before the DC Circuit challenging numerous aspects of EPA’s proposed GHG rules. The court ruled on June 9, 2015, that since the EPA had not yet finalized its GHG rules under Section 111(d) of the Clean Air Act, the court could not review its legality. Subsequently, on August 3, 2015, the EPA finalized rules, in the form of the Clean Power Plan, establishing guidelines for states to follow in developing plans to reduce GHG emission from existing fossil fuel-fired EGUs. The Clean Power Plan has been challenged by multiple states in the DC Circuit. On February 9, 2016 the Supreme Court stayed the Clean Power Plan, which means it will not take effect until court review is complete. The DC Circuit has scheduled oral arguments for June 2, 2016.

Under the Plan, states are required to prepare State Implementation Plans to meet state targets established based on emission reductions from affected sources. The Plan requires that the Best System of Emission Reduction (“BSER”) is employed, and establish three building blocks that include heat rate improvements at the affected plant, substituting generation from less carbon-intensive EGUs, and substituting renewable generation. The EPA expressed in the plan that the combination qualifies as the “best” system that is “adequately demonstrated” and the combination will be required to meet the state emission limits. We believe that these regulations could create an opportunity for the Company to continue to develop technologies to address the long-term needs of our customers to reduce CO_2 emissions through technologies applied at affected sources and approaches to support plant operations within a more complex interconnected grid environment.

On March 27, 2012, the EPA proposed the first Clean Air Act standard for CO_2 emissions from new coal and natural-gas fired power plants as a result of two separate settlements with states and environmental groups in 2010. In response to comments received on the March 27, 2012 proposal, the EPA, on September 20, 2013, proposed revised standards regarding the same new source CO_2 emissions standards. On June 2, 2014, the EPA proposed CO_2 emission standards for modified and reconstructed power plants. On August 3, 2015, the EPA finalized the proposed rules for newly constructed, modified, and reconstructed power plants. These standards reflect the degree of emission limitation

achievable through the application of the BSER that the EPA has determined has been adequately demonstrated for each type of unit.

Segment Information

The Company is organized in four reportable segments: (1) Refined Coal ("RC"); (2) Emissions Control - Engineering and Technology Services ("EC - ETS"); (3) Emissions Control - Manufacturing ("EC - Manufacturing"); and (4) Research and Development ("R&D").

Financial information related to each of the Company's reportable segments is set forth in the Consolidated Financial Statements filed as a part of this report in Note 18 and that information is incorporated by reference here.

(1) RC Segment

Our RC segment derives its earnings from equity method investments as well as royalty payment streams and other revenues related to reduced emissions of both NO_X and mercury from coals. Reduced emissions of both NO_X and mercury from the combustion of coal is necessary to comply with regulatory standards. The Company's equity method investments related to the RC segment include CCS, CCSS and RCM6. Currently, we hold equity interests of 42.5%, 50%, and 24.95% in CCS, CCSS, and RCM6, respectively.

CCS owns, leases or sells facilities used in the production of RC. The RC facilities are located at coal-fired generation stations owned by regulated utilities, cooperatives, government agencies and wholesale power generators (collectively, "Generators"). The RC produced by the RC facilities is used by the Generators as fuel in the coal-fired boilers to produce electricity. The production of RC via these RC facilities qualifies for tax credits that are available under Section 45 of the Internal Revenue Code ("IRC")("Production Tax Credits" or "PTCs"). The IRS has issued guidance regarding emissions reductions in the production of electricity by coal-fired power plants including measurement and certification criteria necessary to qualify for the Section 45 PTCs. Under the Tax Relief and Job Creation Act of 2010, the deadline for placing qualifying RC facilities into service was extended from December 31, 2009 to December 31, 2011. CCS placed 28 RC facilities into service during the applicable time periods. The value of the Section 45 PTC is adjusted annually based on inflation adjustment factors published in the Federal Register. As of December 31, 2014, the tax credit received under Section 45 of the IRC was $6.60 per ton of coal produced.

Those RC facilities that CCS has leased or sold to tax equity investors are referred to as invested facilities ("invested"). CCS collects lease income from the lessee, if leased, or sales proceeds from the buyer if sold, of the invested RC facilities. The Company benefits from these transactions through its equity method investment in CCS. RC facilities that are producing RC but that CCS has not leased or sold are referred to as retained RC facilities ("retained"). The owners of CCS, including the Company, may benefit to the extent PTCs and other tax benefits are realized from the operation of retained RC facilities. The ability to generate PTC's expires 10 years after each RC facility was placed into service but not later than December 31, 2021. RCM6 owns a single RC facility managed by an affiliate of CCS, of which the Company owns 24.95%.

CCSS operates and maintains RC facilities under operating and maintenance agreements. CCS or the owners or lessees of the RC facilities pay CCSS, subject to certain limitations, the costs of operating and maintaining the RC facilities plus various fees. CCSS also arranges for the purchase and delivery of certain chemical additives, which include the chemicals required for our CyClean™, M-Prove™, M-45™ and M-45-PC™ technologies, necessary for the production of RC under chemical agency agreements. The term of each chemical agency agreement runs concurrently with the respective RC facilities lease. CCSS is also the primary beneficiary of certain RC facilities that are VIEs and therefore consolidates such RC facilities. All net income (loss) associated with these consolidated RC facilities is allocated to the noncontrolling equity owners and therefore does not impact our equity earnings (loss) from CCSS.

CCS also pays us royalties from licensing our M-45™ and M-45-PC™ emission control technologies to CCS ("M-45 License"). Royalties are earned based upon (i) a percentage of the per-ton, pre-tax margin of RC produced with the M-45 License that produces a valid and verifiable Section 45 tax credit, net of certain allocable operating expenses, (ii) a percentage of the Section 45 tax credits claimed, and not invested by a licensee, sublicensee, or licensee affiliate using the M-45 License, net of certain allocable operating expenses and (iii) a percentage of the revenue, net of all direct expenses, received by CCS as a direct result of CCS's exercise of the M-45 License.

(2) EC - ETS Segment

(a) Systems & Equipment- Activated Carbon Injection and Other Systems

The Company is an established market leader in the supply of ACI systems for the coal-fired electric industry. The injection of activated carbon into the coal combustion flue gas downstream for the purpose of absorbing mercury molecules is the most

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established and accepted technology to specifically reduce mercury emissions. The Company's proprietary and highly engineered ACI systems facilitate a customer's ability to reliably and cost effectively meet regulatory emissions limits. Demand for ACI systems remained strong in 2013 and 2014 and into the first quarter of 2015 with the majority of coal-fired utility boilers required to comply with MATS by April 2015, although a number of units have been granted extensions for compliance until April 2016. In addition, we expect that some plants that were relying on native mercury capture due to coal characteristics and benefits from other air pollution control devices already installed such as wet scrubbers will require additional controls during certain operating periods which will result in a few additional sales of ACI systems. We also expect that some industrial boilers will require ACI to meet the IBMACT mercury compliance levels. Although the MATS compliance is required as of April 2015 or 2016, many coal-fired generators will likely modify their control processes to ensure the most effective and cost efficient compliance. As such, additional ACI opportunities may emerge over the coming years.
In 2015 the Company developed and is currently selling other environmental equipment systems; such as, ADAir-Mixer™ and ProRak™.

(b) Consulting Services
We also offer consulting services to assist electric power generators and others in planning and implementing strategies to meet the new and increasing government emission standards requiring reductions in SO_2, SO_3, HCl, NO_X, particulates, acid gases and mercury. This includes demonstrations of our commercial products.

In 2015 the Company developed and is currently selling other consulting and analytic services; such as, ADA® Health Check, continuous and predictive emissions monitoring systems and solutions.

(c) Chemicals

(i) Mercury Control Additives
Our proprietary M-Prove™ pre-combustion coal treatment technology involves the application of proprietary chemicals to coal. This technology (formerly referred to as Enhanced Coal) substantially reduces mercury emissions and also can reduce the amount of activated carbon or other sorbents, or potentially eliminate the need to use sorbents, for mercury capture at certain coal-fired power plants. We have shown that the application of M-Prove™ technology to Western coals, such as Powder River Basin ("PRB") and lignite, can reduce emissions of mercury by 40% to 90%, and in some cases may, as a sole treatment option, be sufficient to meet MATS compliance. One of the advantages of the M-Prove™ technology is that it does not rely on bromine, which is the basis of many other competing chemical sorbent additive technologies. The power industry is beginning to experience corrosion and wastewater issues in their plants that they attribute to the use of bromine to enhance the capture of mercury. We believe that demand for M-Prove™ technology may accelerate after the majority of plants commence operations of their mercury control systems in early 2016. In October 2012, we were awarded the first of what we believe will be a family of patents designed to protect this technology both in the US and abroad.
The Company licenses certain emissions control technologies to CCS for the production of RC. ADA’s CyClean™, M-45™ and M-45-PC™ technologies all incorporate the M-Prove™ additive, along with other additives, to reduce emissions of both mercury and NO_X from coal-fired boilers. ADA licensed its patented CyClean™ technology to CCS upon formation of the entity in 2006, for use with cyclone boilers for the life of the patents. In July 2012, ADA licensed its M-45™ technology to CCS (the “M-45 License”) for as long as Section 45 tax credits are available in order to leverage CCS’s operating expertise and allow CCS the ability to provide and use either the CyClean™ or M-45™ technology to produce RC. In the third quarter of 2012, ADA made a technological advancement in the M-45™ technology that allows it to be effective in “pulverized coal” (“PC”) boilers, which improvement is included in the terms of the M-45 License. In addition to the royalty payments discussed in the RC segment above, the use of M-Prove™ technology in the production of RC provides valuable operating data and validates the effectiveness of the M-Prove™ technology in a range of coal-fired boilers. ADA expects this information will help in its sales process for the M-Prove™ technology.

(ii) Flue Gas Chemicals and Services

We have deployed technologies for conditioning flue gas streams from coal-fired combustion sources. Our flue gas conditioning chemical allows existing air pollution control devices, such as electrostatic precipitators ("ESPs"), to operate more efficiently without the use of traditional SO_3 additives, which have been shown to be detrimental to effective mercury control by partially negating the effectiveness of certain sorbents used to absorb mercury, including activated carbon. Such treatment of

the flue gas stream allows for effective collection of fly ash particles that would otherwise escape into the atmosphere. The use of the proprietary chemical blends may help existing marginally sized ESPs continue to operate effectively when applied exclusively or in combination with other chemicals such as hydrated lime, activated carbon products, or other high-resistivity materials. Our flue gas conditioning chemical is currently sold under the registered trademark RESPond®.

(3) EC - Manufacturing Segment

(a) Systems & Equipment - Dry Sorbent Injection Systems

The Company supplies DSI systems for the electric utility industry through its subsidiary BCSI. DSI systems inject dry alkaline sorbents to control acid gases such as SO_3 and HCl. Our DSI technology is also used to control SO_2, one of six criteria air pollutants. The use of DSI for SO_3 reduction in conjunction with ACI has also been shown to enhance the capture of mercury from coal-fired boilers. While this segment was active through 2015, the Company terminated manufacturing operations through BCSI at the end of 2015 and will focus its future efforts within the DSI market on engineering and related services, similar to our current structure in within the ACI market.

Demand for these systems remained strong in 2013 and 2014 with the majority of coal-fired utility boilers required to comply with the MATS by April 2015 and a number of units granted extensions for compliance until April of 2016. DSI is used to control HCl to meet MATS and IBMACT HCl limits, to control SO_3 for improved ACI effectiveness for mercury control, and limited SO_2 control. DSI sales continued into 2015 to meet MATS and the IBMACT and, are expected to continue on a more limited basis into 2016 and 2017 for CSAPR and associated SO_2 NAAQS rule, and 2017 for the Regional Haze Rule.

Beyond 2016, we plan to sell DSI systems that are manufactured through third parties rather than by us, similar to our ACI systems.

(b) Consulting Services

We also offer consulting services to assist the electric utility industry and others in planning and implementing strategies to meet the new and increasing government emission standards. This includes demonstrations of our commercial products.

(4) R&D Segment

This segment focuses on the research and development of technologies, such as those aimed at the separation, capture and control of CO_2 emissions related to power generation, oil & gas production technologies and energy storage applications through internal funds, and contracts supported by the DOE and industry participants. The contracts with the DOE take the form of grants or cooperative agreements and are considered financial assistance awards. The agreements require us to perform the negotiated scope of work in agreed phases, which includes testing and demonstration of technologies and the deliverables required by the DOE agreements include various technical and financial reports that we submit on a prescribed schedule.

Competition

We are an established leader in the mercury control market for coal-fired electric power generators. We add significant value to our base offerings by having complementary products and services. Our expertise and experience in conducting full-scale emissions control demonstrations reflects our understanding of the application of the control technologies that customers find valuable. Our ability to provide users with performance guarantees on our equipment along with comprehensive testing services and overall compliance strategies enhances our competitive position in this market. In the RC market, we believe Chem-Mod LLC and licensees of the Chem-Mod technology are our principal competitors. In the emissions control ("EC") equipment market, we believe Norit Americas, Inc., a division of Cabot Corporation, Alstom Power, The Babcock & Wilcox Company, United Conveyor Corporation, Nol-Tec Systems, Inc. and Clyde Bergemann, Inc. are our principal competitors in the ACI market and that Nol-Tec Systems, Inc., United Conveyor Corporation, Clyde Bergemann, Inc., Nalco-Mobotec and Babcock & Wilcox are our principal competitors in the DSI market.

Competition within the RC market is based primarily on price, the number of tons of coal burned at the coal-fired power plant where the RC facilities are operating and the tax compliance facts associated with each RC facility. Competition for ACI systems is based primarily on price, quality, performance, terms of performance guarantees and the ability to meet the requested delivery and installation schedule. In addition, certain competitors have the ability to offer their own activated carbon for use in their ACI systems, which may provide them with a competitive advantage. Similar to ACI systems,

competition for DSI systems is based primarily on price, quality, performance and the ability to meet the requested engineering, fabrication, delivery and installation schedule.

Our mercury control chemicals primarily compete against the use of activated carbon and brominated activated carbon, as well as the use of bromine applied to the coal prior to combustion. Because of a number of market and technology dynamics, there is not a definitive connection between the sale of mercury control systems and the ultimate supply of mercury control chemicals. Thus when we are successful with a contract for the ACI equipment, it does not guarantee that we will also sell that customer M-Prove™ coal additives, and when a customer buys a competitors' ACI system it does not mean that that customer is not a viable candidate for our chemicals.

In our R&D segment, we compete for government research projects against a wide range of emissions control companies, chemical companies and research and development companies.

Patents

As of December 31, 2014, we had 28 United States (U.S.) patents issued or allowed, an additional 19 U.S. Provisionals or applications pending and 13 international patent applications pending or filed relating to different aspects of our technology. Our existing patents generally have terms of 15 to 20 years measured from the application date, the earliest of which was in 1993. We consider many of our patents or pending patents to be critical to the ongoing conduct of our business.

Materials and Working Capital Practices

We purchase our materials, including equipment, fabricated modules and steel, from a variety of vendors for engineered ACI systems, components and other equipment we provide. Such equipment is available from numerous sources; however, based on the system requested by the customer we may determine that some sources are not suitable. We typically subcontract the major portion of the work associated with installation of such equipment to a variety of vendors, usually located near the work site.

Similarly, we purchase materials and components from a variety of vendors for the DSI systems fabricated at BCSI facilities. To date we have typically fabricated our own DSI silos, manifolds, lances, and control panels and integrate these components at our shop or at the power plant, but in the future we will outsource these activities.

We purchase our proprietary chemicals through negotiated blending contracts that include secrecy agreements with chemical suppliers located near major customers. These arrangements minimize transportation costs while assuring continuous supply of our proprietary chemical blends. The chemicals used are readily available, and there are several chemical suppliers that can provide us with our requirements. Supply agreements are generally renewed on an annual basis.

We do not provide any extended payment terms to our customers. We typically provide equipment warranties and performance guarantees related to our EC ACI and DCI systems. See "Risk Factors" and Note 15, in the Consolidated Financial Statements filed as a part of this Form 10-K.

Seasonality of Activities

The sale of chemicals and RC facility operation levels depend on the operations of the electric power generators to which the applicable chemicals are provided and RC facilities are located, respectively. These customers routinely schedule maintenance outages in the spring and/or fall depending upon the operation of the boilers. During the period in which an outage may occur, which may range from one week to over a month, no chemicals are used or RC produced and purchases from us and related revenues can be correspondingly reduced. The other aspects of our business are not seasonal in any material way.

Dependence on Major Customers

We depend upon our customer relationships with owners and operators of coal-fired power generation facilities, as well as general market demand for coal-fueled power generation. Our internal and external sales staff markets our technology through trade shows, mailings and direct contact with potential customers.

Through our investment in CCS we depend upon our relationships with owners and operators of coal-fired power generation facilities, including various electric utilities and tax equity investors. CCS is the exclusive licensee for purposes of producing RC for the CyClean™, M-45™ and M-45-PC™ technologies. CCS also depends on tax equity investors with significant concentration within an affiliate of GS and, as described in Item 1A, these entities could renegotiate or terminate their leases or the utilities where the RC facilities are installed could materially reduce their use of RC.

Additional information related to major customers can be found in Note 19 of the Consolidated Financial Statements within Item 8 of this Form 10-K.

Research and Development Activities

We conduct research and development directed toward the reduction of mercury emissions, DSI, RC activities, and CO_2 capture. Certain of this research and development, and specifically related to CO_2 capture, has been funded under contracts and/or cost reimbursement arrangements with the DOE and other third parties. Our R&D expense, net of DOE and industry cost-share partners, for R&D during the years ended December 31, 2014, 2013 and 2012 (Restated) was $1.5 million, $3.2 million and $0.3 million, respectively. Prior to cost share reimbursements, we incurred expenses of $3.6 million, $13.1 million and $3.1 million on our own behalf on research and development activities related to further development of our technologies during 2014, 2013 and 2012 (Restated), respectively. We engage in these activities in order to continue to develop technologies to bring to the broader emissions control market and to expand our own offerings into other areas.

Refined Coal Data

The following table provides summary information related to the Company's investment in CCS and the related RC facilities as of December 31, 2014 and RC tons produced for the year ended December 31, 2014:

	# of RC Facilities	Not Operating	Operating	
			Invested	Retained
RC Facilities	28	11	12	5
RC tons produced (000's)			29,535	7,138

Additional information related to RC facilities is included within Item 7 of this Form 10-K.

Backlog

Backlog represents the dollar amount of revenues we expect to recognize in the future from fixed-price contracts, primarily for ACI and DSI systems as well as certain consulting service contracts that have been signed as well as those that are currently in progress. The Company includes a project in backlog when a contract is executed. Backlog amounts include anticipated revenues associated with the original contract amounts, executed change orders, and any claims that may be outstanding with customers. It does not include contracts that are in the bidding stage or have not been awarded. As a result, the Company believes the backlog figures are firm, subject to customer modifications, alterations or cancellation provisions contained in the various contracts.

Backlog may not be indicative of future operating results. Estimates of profitability could increase or decrease based on changes in direct materials, labor and subcontractor costs, and indirect costs related to contract performance, such as indirect labor, supplies, tools and repairs, and any claims with customers. Backlog is not a measure defined by generally accepted accounting principles that are followed in the United States ("GAAP" or "U.S. GAAP") and is not a measure of profitability. The Company’s method for calculating backlog may not be comparable to methodologies used by other companies.

(in thousands)	EC - ETS	EC - Manufacturing	Total
Backlog as of December 31, 2013	$51,705	$57,685	$109,390
New contracts	36,828	10,623	47,451
Change order and claims to existing contracts, net	718	(427)	291
Revenues recognized	(12,305)	(728)	(13,033)
Backlog as of December 31, 2014	$76,946	$67,153	$144,099

Employees

As of December 31, 2014 we employed 231 full-time and part-time personnel, including eight ADES executives. 95 people were employed at our offices in Colorado, 131 were employed in Pennsylvania and one was employed in each of Maryland, Massachusetts, Alabama, Texas and Illinois, respectively. BCSI, our wholly owned subsidiary, employed 129 of the 131 Pennsylvania full-time and part-time personnel at our offices in Pennsylvania.

Subsequent to December 31, 2014, there were changes in the number of employees in connection with management's alignment of the business with strategic objectives. As of December 31, 2015, the Company had 69 full-time and part-time personnel, including six ADES executives.

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Copies of Reports

Our periodic and current reports are filed with the SEC pursuant to Section 13(a) of the Securities Exchange Act of 1934 and are available free of charge within 24 hours after they are filed with or furnished to the SEC at the Company's website at www.advancedemissionssolutions.com. Alternatively, these reports can be accessed at the SEC's website at www.sec.gov. The information contained on our web site shall not be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act.

Copies of Corporate Governance Documents

The following Company corporate governance documents are available free of charge at the Company's website at www.advancedemissionssolutions.com and such information is available in print to any stockholder who requests it by contacting the Secretary of the Company at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch CO, 80129.

- Articles of Incorporation
- Bylaws
- Code of Ethics and Business Conduct
- Insider Trading Policy
- Whistleblower Protection Policy
- Audit Committee Charter
- Compensation Committee Charter
- Finance Committee Charter
- Nominating and Governance Committee Charter

Forward-Looking Statements Found in this Report

This Report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act, that involve risks and uncertainties. In particular such forward-looking statements are found in this Part I and under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operation" in Part II, Item 7 below. Words or phrases such as "anticipates," "believes," "expects," "intends," "plans," "estimates," "predicts," the negative expressions of such words, or sim expressions are used in this Report to identify forward-looking statements, and such forward-looking statements include, but are not limited to, statements or expectations regarding:

(a) the scope and impact of mercury and other regulations or pollution control requirements, including the impact of the final Mercury and Air Toxics Standards ("MATS");
(b) the production of RC will qualify for IRC Section 45 tax credits in conjunction with the production of RC;
(c) expected growth or contraction in and potential size of our target markets;
(d) expected supply and demand for our products and services;
(e) increasing competition in the emission control market;
(f) the effectiveness of our technologies and the benefits they provide;
(g) CCS's ability to profitably sell and/or lease additional RC facilities and/or RC facilities that may be returned to CCS, or recognize the tax benefits from their operations;
(h) the timing of awards of, and work and related testing under, our contracts and agreements and their value;
(i) the timing and amounts of or changes in future revenues, royalties earned, backlog, funding for our business and projects, margins, expenses, earnings, tax rate, cash flow, royalty payment obligations, working capital, liquidity and other financial and accounting measures;
(j) the outcome of current and pending legal proceedings;
(k) awards of patents designed to protect our proprietary technologies both in the U.S. and abroad;
(l) the materiality of any future adjustments to previously recorded reimbursements as a result of Department of Energy ("DOE") audits and the amount of contributions from the DOE and others towards planned project construction and demonstrations; and
(m) whether any legal challenges or Environmental Protection Agency ("EPA") actions will have a material impact on the implementation of the MATS or other regulations and on our ongoing business.

Our expectations are based on certain assumptions, including without limitation, that:

(a) coal will continue to be a major source of fuel for electrical generation in the United States;
(b) the IRS will allow the production of RC to qualify for IRC Section 45 tax credits;

(c) contracts we have with the DOE will continue to be funded at expected levels and we will be chosen to participate in additional contracts of a similar nature;
(d) we will continue as a key supplier of equipment, chemicals and services to the coal-fired power generation industry as it seeks to implement reduction of mercury emissions;
(e) current environmental laws and regulations requiring reduction of mercury from coal-fired boiler flue gases will not be materially weakened or repealed by courts or legislation in the future;
(f) we will be able to meet any performance guarantees we make and continue meet our other obligations under contracts;
(g) we will be able to obtain adequate capital and personnel resources to meet our operating needs and to fund anticipated growth and our indemnity obligations;
(h) we will be able to establish and retain key business relationships with other companies;
(i) orders we anticipate receiving will in fact be received;
(j) governmental audits of our costs incurred under DOE contracts will not result in material adjustments to amounts we have previously received under those contracts;
(k) we will be able to formulate new chemicals and blends that will be useful to, and accepted by, the coal-fired boiler power generation business;
(l) we will be able to effectively compete against others;
(m) we will be able to meet any technical requirements of projects we undertake;
(n) CCS will be able to sell or lease the remaining RC facilities, including RC facilities that may be returned to CCS, to third party investors; and
(o) we will be able to utilize our portion of the Section 45 tax credits generated by operation of RC facilities for the benefit of the members of CCS.

The forward-looking statements included in this Report involve risks and uncertainties. Actual events or results could differ materially from those discussed in the forward-looking statements as a result of various factors including, but not limited to, timing of new and pending regulations and any legal challenges to or extensions of compliance dates of them; the government's failure to promulgate regulations or appropriate funds that benefit our business; changes in laws and regulations, accounting rules, prices, economic conditions and market demand; impact of competition; availability, cost of and demand for alternative energy sources and other technologies; technical, start up and operational difficulties; failure of the RC facilities to produce coal that qualifies for tax credits; termination of or amendments to the contracts for RC facilities; decreases in the production of RC; inability to commercialize our technologies on favorable terms; our inability to ramp up our operations to effectively address recent and expected growth in our business; loss of key personnel; potential claims from any terminated employees, customers or vendors; failure to satisfy performance guarantees; availability of materials and equipment for our businesses; intellectual property infringement claims from third parties; pending litigation; elevated spending on non-recurring cash expenses, which may last longer than expected or reductions in operating costs may be less than expected; identification of additional material weaknesses or significant deficiencies; as well as other factors relating to our business, as described in our filings with the U.S. Securities and Exchange Commission ("SEC"), with particular emphasis on the risk factor disclosures contained in those filings and in Item 1A of this Report. You are cautioned not to place undue reliance on the forward-looking statements made in this Report and to consult filings we have made and will make with the SEC for additional discussion concerning risks and uncertainties that may apply to our business and the ownership of our securities. The forward-looking statements contained in this Report are presented as of the date hereof, and we disclaim any duty to update such statements unless required by law to do so.

Item 1A. Risk Factors

RISKS RELATING TO OUR BUSINESS

The following risks relate to our business as of the date of this Report, or any alternative date specified. This list of risks is not intended to be exhaustive, but reflects what we believe are the material risks inherent in our business and the ownership of our securities as of the specified dates. A statement to the effect that the happening of a specified event may have a negative impact on our business, results of operations, profitability, financial condition, or the like, is intended to reflect the fact that such an event would be likely to have a negative impact on your investment in the Company, but should not imply the likelihood of the occurrence of such specified event. The order in which the following risk factors are presented is not intended as an indication of the relative seriousness of any given risk.

DEMAND FOR OUR PRODUCTS AND SERVICES DEPENDS SIGNIFICANTLY ON ENVIRONMENTAL LAWS AND REGULATIONS; UNCERTAINTY AS TO THE FUTURE OF SUCH LAWS AND REGULATIONS, AS WELL AS CHANGES TO SUCH LAWS AND REGULATIONS, OR GRANTING OF EXTENSIONS OF COMPLIANCE DEADLINES HAS HAD, AND WILL LIKELY CONTINUE TO HAVE, A MATERIAL EFFECT ON OUR BUSINESS.

A significant market driver for our existing products and services, and those planned in the future, are present and expected environmental laws and regulations, particularly those addressing the reduction of mercury and other emissions from coal-fired power plants. If such laws and regulations are delayed or are not enacted or are repealed or amended to be less strict, or include prolonged phase-in periods, or not enforced, our business would be adversely affected by declining demand for such products and services. For example:

- The implementation of environmental regulations regarding certain pollution control and permitting requirements has been delayed from time to time due to various lawsuits. The uncertainty created by litigation and reconsiderations of rule-making by the EPA has negatively impacted our business, results of operations and financial condition and will likely continue to do so.

- To the extent federal, state, and local legislation mandating that electric power generating companies serving a state or region purchase a minimum amount of power from renewable energy sources such as wind, hydroelectric, solar and geothermal, and such amount lessens demand for electricity from coal-fired plants, those mandates would likely reduce demand for our products and services.

Federal, state, and international laws or regulations addressing emissions from coal-fired facilities, climate change or other actions to limit emissions including public opposition to new coal power plants, has caused and could continue to cause electricity generators to transition from coal to other fuel and power sources, such as natural gas, nuclear, wind, hydroelectric and solar. The potential financial impact on us of future laws or regulations or public pressure will depend upon the degree to which electricity generators diminish their reliance on coal as a fuel source. That, in turn, will depend on a number of factors, including the specific requirements imposed by any such laws or regulations, the periods over which those laws or regulations are or will be phased in, the amount of public opposition, and the state and cost of commercial development of related technologies and processes. In addition, Public Utility Commissions may not allow utilities to charge consumers for and pass on the cost of emission control technologies without federal or state mandate. In view of the significant uncertainty surrounding each of these factors, we cannot reasonably predict the impact that any such laws or regulations or public opposition may have on our results of operations, financial condition or cash flows.

THE ABILITY OF CCS TO GENERATE REVENUES FROM THE SALE OR LEASE OF RC FACILITIES TO INVESTORS IS NOT ASSURED, AND THE INABILITY TO SELL, LEASE OR OPERATE RC FACILITIES TO GENERATE SECTION 45 TAX CREDITS COULD ADVERSELY AFFECT OUR FUTURE GROWTH AND PROFITABILITY.

Except for RC facilities that CCS may retain and operate permanently for its own account, CCS is attempting to sell or lease the remaining RC facilities to investors. The inability of CCS to successfully lease or sell additional RC facilities, or RC facilities that may be returned to CCS over time, to third party investors who will receive the benefit of the Section 45 tax credits that it expects to generate from those RC facilities would likely have an adverse effect on

future growth and profitability.

Furthermore, if in the future electric power generators decide to limit coal-fired generation for economic reasons and/or not to burn and use RC and instead switch to another power or fuel source, CCS would likely be unable to fully generate the Section 45 tax credits potentially available from RC facilities over the anticipated term of the Section 45 tax credit program. In

addition, pursuant to CCS's Operating Agreement, if CCS is unable to generate enough revenue through the sale or lease of RC facilities over the next eight years to return the unrecovered investment balance, on an investment in CCS of $60 million made by GSFS, an affiliate of GS, plus a 15% annual return thereon, then GSFS may require CCS to redeem its interest in CCS for any deficit of such amount not distributed to GSFS. As of December 31, 2014, the unrecovered investment balance, inclusive of the 15% annual return was $45.5 million, as shown in the CCS Consolidated Financial Statements, included within Item 15 of this Form 10-K.

MARKET UNCERTAINTY CREATED BY THE LACK OF GUIDANCE AND RULINGS ISSUED BY COURTS AND THE IRS COULD INHIBIT CCS's ABILITY TO LEASE OR SELL ADDITIONAL RC FACILITIES OR REQUIRE A RESTRUCTURING OF, OR RESULT IN THE TERMINATION OF, EXISTING ARRANGEMENTS.

The availability of Section 45 tax credits to taxpayers investing in RC facilities depends upon a number of factors, including the risk assumed by the taxpayer in the RC facility investment transaction. The law addressing when a taxpayer may and may not avail itself of Section 45 tax credits is not fully developed and is subject to rulings by courts, interpretations by the IRS and other official pronouncements on tax credit regulations. If rulings, guidance or other pronouncements of courts or the IRS are lacking or are interpreted as allowing the IRS to restrict availability, increase the difficulty, or prohibit or limit the ability of taxpayers to take advantage of Section 45 tax credits, several aspects of our current and future RC business could be adversely impacted. For example, current investors in RC facilities may decide to terminate their existing agreements or potential investors may reduce the price they are willing to pay or change the structure of the investment to account for perceived risks associated with Section 45 tax credits. Finally, for four years after an RC facility is placed in service it is eligible to generate Section 45 tax credits referred to as "specified credits" which are attractive to individual taxpayers. Since the time period to generate specified credits passed at the end of December 2015, individual taxpayers may no longer participate in the market and the size of the pool of taxpayers wishing to lease or buy an RC facility may be reduced.

TECHNICAL OR OPERATIONAL PROBLEMS WITH LONG-TERM OPERATION OF OUR RC FACILITIES COULD RESULT IN ADDITIONAL COSTS AND DELAYS THAT ADVERSELY AFFECT OUR FINANCIAL CONDITION.

The initial RC facilities were operated using CyClean™ technology at cyclone boilers. CCS began operating RC facilities using its M-45™ technology at circulating fluidized bed ("CFB") boilers in 2012 and pulverized coal ("PC") boilers in 2013. Given the different technology and boilers, the likelihood for technical or operational problems may be increased. Any such problems could result in decreased production of RC at such facilities and/or delays in, or postponement or cancellation of, expected potential future installations and operations at electric power generators and would likely have a material adverse effect on our business, financial condition and results of operations.

PRESENT RELIANCE UPON ONE INVESTOR FOR A SUBSTANTIAL PORTION OF OUR EARNINGS FROM CCS AND ANY RENEGOTIATION BY OR LOSS OF THIS INVESTOR OR ANY FAILURE TO CONTINUE TO PRODUCE RC AT THE INVESTOR'S RC FACILITIES WOULD HAVE A MATERIAL ADVERSE EFFECT ON OUR BUSINESS.

As of December 31, 2015, ten of CCS's 28 RC facilities are leased to entities related to affiliates of GS. A significant component of our total cash flows come from CCS distributions relating to these leases. These leases have an initial fixed period and then automatically renew, unless terminated at the option of the lessee, for successive one-year terms through 2019 or 2021. If these GS related entities renegotiated or terminated their leases or if the utilities where the RC facilities are installed materially reduce their use of RC, this would have a material adverse effect on our business, results of operations or financial condition.

REDUCTION OF COAL CONSUMPTION BY U.S. ELECTRIC POWER GENERATORS COULD RESULT IN LESS DEMAND FOR OUR PRODUCTS AND SERVICES. IF UTILITIES SIGNIFICANTLY REDUCE THE NUMBER OF COAL FIRED POWER PLANTS OR THE AMOUNT OF COAL BURNED, WITHOUT A CORRESPONDING INCREASE IN THE SERVICES REQUIRED AT THE REMAINING PLANTS. THIS COULD REDUCE OUR REVENUES AND MATERIALLY AND ADVERSELY AFFECT OUR BUSINESS, FINANCIAL CONDITION, AND RESULTS OF OPERATIONS.

The amount of coal consumed for U.S. electric power generation is affected by, among other things (1) the location, availability, quality and price of alternative energy sources for power generation, such as natural gas, fuel oil, nuclear, hydroelectric, wind, biomass and solar power; and (2) technological developments, including those related to

alternative energy sources.

Natural gas-fueled generation has been displacing and may continue to displace coal-fueled generation, particularly from older, less efficient coal-powered generators. We expect that many of the new power plants needed to meet increasing demand for electricity generation will be fueled by natural gas because the price of natural gas has remained at relatively low levels after a period of sharp decline, gas-fired plants are cheaper to construct and permits to construct these plants are easier to obtain as natural gas is seen as having a lower environmental impact than coal-fueled generators, and ongoing costs associated with meeting environmental compliance are lower. Possible advances in technologies and incentives, such as tax credits, to enhance the economics of renewable energy sources could make these sources more competitive with coal. Any reduction in the amount of coal consumed by domestic electric power generators could reduce the demand for our current products and services, thereby reducing our revenues and materially and adversely affecting our business and results of operations.

Additionally, long-term changes in environmental regulation that threaten or preclude the use of coal or other fossil fuels as a primary fuel source for electricity production, and result in the reduction or closure of a significant number of coal-fired power plants, may adversely affect our business, financial condition and results of operations.

OUR DEPENDENCE ON THIRD PARTIES FOR MANUFACTURING KEY COMPONENTS OF OUR SYSTEMS MAY CAUSE DELAYS IN DELIVERIES, INCREASED WARRANTY CLAIMS, AND INCREASED COSTS TO US.

Between 2012 and 2015, we owned and controlled only one manufacturing and assembly facility for our DSI systems. In accordance with our previous disclosures, manufacturing and assembly operations at that facility, located in McKeesport, PA, were shut down at the end of 2015. Like most of our competitors, we currently rely heavily upon third parties for the manufacture, assembly and some of the testing of key components, such as tanks, for our ACI systems and in the future will also rely on third parties for our DSI systems. Delays or difficulties in the manufacturing, assembly, or delivery of key components of our products could harm our business and financial condition.

There are limited sources of acceptable supply for some key ACI and DSI system components. Business disruptions, financial difficulties of third party suppliers or raw material shortages could increase the cost of our goods sold or reduce the availability of these components. Although the record high customer orders for ACI and DSI systems in 2013 and 2014 have decreased for 2015, the supplier marketplace continues to feel the impact of the rapid and substantial increase in the need for components and materials. If we are unable to obtain a sufficient supply of required components that meet customer specifications in a timely manner, we could experience significant delays in delivery or increased warranty claims, associated with delivery and product performance. Similarly, as we shut down the McKeesport facility and outsource activities to third parties, any significant disruption could result in delays or customer claims. Disruptions of these types could result in the loss of orders or customers or liability for liquidated damages which could materially and adversely affect our business, financial condition and results of operations.

PENDING SECURITIES CLASS ACTION LITIGATION AND DERIVATIVE ACTION COULD DIVERT MANAGEMENT’S FOCUS, RESULT IN SUBSTANTIAL INVESTIGATION EXPENSES, AND HAVE AN ADVERSE IMPACT ON OUR REPUTATION, FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

On May 1, 2014, we became the defendant in a class action lawsuit in the United States District Court for the District of Colorado, where it is alleged that the Company violated federal securities laws by making materially false and misleading statements, among other things. At that time, Plaintiffs were seeking compensatory damages for alleged injuries incurred between March 14, 2013 and April 23, 2014. Plaintiffs amended their complaint on April 20, 2015 to extend the period for which they will seek damages to May 12, 2011 through January 23, 2015. On July 2, 2014, certain of our current and former executive officers and directors became defendants in stockholder derivative litigation alleging breaches of fiduciary duties, waste of corporate assets, utilization of improper accounting techniques and failure to maintain effective internal controls that together resulted in materially inaccurate financial statements from which incentive compensation was derived and paid. This derivative action has been stayed until after certain matters in the class action lawsuit have been ruled on by the court. While we are defending both actions vigorously, the outcome of these actions or the court rulings may substantially harm our business. We have incurred significant legal expenditures in connection with these actions, and we are unable to predict the duration, scope, developments in, results of, or the consequences of the actions. The lawsuits could in the future result in the imposition of damages, additional civil lawsuits, interruptions of business, modification of business practices and

equitable remedies against us or our personnel as well as significant legal and other costs. Because the matters are ongoing, we cannot assure you as to how the resulting consequences, if any, may impact our business, reputation, financial condition, results of operations and cash flow. We cannot currently estimate the potential liability, damages, or range of potential loss, if any, as a result of the legal proceedings. Furthermore, publicity surrounding these actions, even if ultimately resolved favorably for us, could have an adverse impact on our reputation, business, financial condition, results of operations, and cash flows.

IF THE QUALITY AND EFFECTIVENESS OF OUR TECHNOLOGIES, PRODUCTS AND SERVICES DO NOT MEET OUR CUSTOMERS' EXPECTATIONS, THEN OUR SALES, RESULTS OF OPERATIONS AND ULTIMATELY OUR REPUTATION COULD BE NEGATIVELY IMPACTED.

If flaws in the design, production, assembly, delivery, installation or providing of our technologies, products or services (caused by us or our suppliers) were to occur, we could experience substantial liquidated damages, repair, replacement or service costs and potential damage to our reputation. We have provided warranties and performance guarantees for certain ACI and DSI systems we have sold. Under those contractual arrangements we are responsible for repair or replacement costs and certain operating costs, within the limits provided by the contracts, if the agreed specifications are not met. Continued improvement in manufacturing capability assessment and quality control, technological development, supply-chain management, product testing, installation, delivery and other costs, are critical factors in our future growth and meeting our customers' expectations. Our efforts to monitor, develop, modify and implement appropriate technologies, designs and processes for the manufacture, installation and testing of our products may not be sufficient to avoid failures and meet performance criteria that may result in dissatisfied customers, significant repair or replacement costs or potential damage to our reputation, any of which could have a material adverse effect on our business, results of operations or financial condition.

OUR BUSINESSES THAT ARE JOINT VENTURES ARE MANAGED VIA OPERATING AGREEMENTS WHERE WE DO NOT HAVE SOLE CONTROL OF THE DECISION MAKING PROCESS AND WE CANNOT MANDATE DECISIONS OR ENSURE OUTCOMES.

We oversee our joint ventures via operating agreements and by participating in the following activities:
(1) representation on the respective governing Boards, (2) regular oversight of financial and operational performance and controls and establishing audit and reporting requirements, (3) hiring of management personnel, (4) technical support of RC facilities, and (5) other regular and routine involvement with our joint venture partners. Notwithstanding this regular participation and oversight, our joint venture partners also participate in the management of these businesses and they may have business or economic interests that divert their attention from the joint venture or they may prefer to operate the business, make decisions or invest resources in a manner that is contrary to our preferences. Since material business decisions must be made jointly with our joint venture partners, we cannot mandate decisions or ensure outcomes.

FAILURE TO PROTECT OUR INTELLECTUAL PROPERTY OR INFRINGEMENT OF OUR INTELLECTUAL PROPERTY BY A THIRD PARTY COULD HAVE AN ADVERSE IMPACT ON OUR FINANCIAL CONDITION.

We rely on a combination of patent, copyright and trademark laws, trade secrets, confidentiality procedures and contractual provisions to protect our proprietary rights. Such means of protecting our proprietary rights may not be adequate because they provide only limited protection. We also enter into confidentiality and non-disclosure agreements with our employees, consultants, many of our customers, and many of our vendors and generally control access to and distribution of our proprietary information. Notwithstanding these precautions, a third party could copy or otherwise obtain and use our proprietary information without authorization. We cannot assure you that the steps taken by us will prevent misappropriation of our technology and intellectual property, which could result in injury to our business and financial condition. In addition, such actions would divert the attention of our management from the operation of our business.

WE MAY BE SUBJECT TO INTELLECTUAL PROPERTY INFRINGEMENT CLAIMS FROM THIRD PARTIES THAT ARE COSTLY TO DEFEND AND THAT MAY LIMIT OUR ABILITY TO USE THE DISPUTED TECHNOLOGIES.

Companies in the business of developing technology face the risk of being subject to intellectual property infringement claims that are costly to defend. As a company regularly involved in developing and commercializing new technologies, we may be subject to intellectual property infringement claims from third parties, the defense of which would likely be costly in terms of monetary expenses and management demands. If our technologies infringe the intellectual property rights of others, we may be prevented from continuing sales of existing products or services and from pursuing research, development or commercialization of new products or services. Further, we may be required to obtain licenses to third party intellectual property, or be forced to develop or obtain alternative technologies. Our failure to obtain a license to any technology that we may require or to develop or obtain alternative

technologies could significantly and negatively affect our business.

WE HAVE AGREEMENTS TO INDEMNIFY THIRD PARTIES AGAINST INTELLECTUAL PROPERTY CLAIMS CONCERNING LICENSED TECHNOLOGY AND OUR PRODUCTS THAT COULD BE SIGNIFICANT.

We have agreed to indemnify licensees of our technologies (including CCS and Arch Coal, Inc.) and purchasers of our products and may enter into additional agreements with others under which we agree to indemnify and hold the third party harmless

from and against losses it may incur as a result of the infringement of third party rights caused by the use of our technologies and products. Infringement claims, which are expensive and time-consuming to defend, could have a material adverse effect on our business, operating results and financial condition, even if we are successful in defending ourselves (and indemnified parties) against them.

OUR FUTURE SUCCESS DEPENDS IN PART ON OUR ONGOING IDENTIFICATION AND DEVELOPMENT OF INTELLECTUAL PROPERTY AND OUR ABILITY TO INVEST IN AND DEPLOY NEW PRODUCTS, SERVICES, AND TECHNOLOGIES INTO THE MARKETPLACE EFFICIENTLY AND COST EFFECTIVELY.

The process of identifying customer needs, and developing and enhancing products, services and solutions for our various business segments is complex, costly and uncertain. Any failure by us to identify and anticipate changing needs, emerging trends and new regulations could significantly harm our future market share and results of operations. Historically, our approach to technology development, implementation and commercialization has focused on quickly taking technology to full-scale testing, and enhancing it under actual power plant operating conditions. We continue to review and adjust methods to deploy products, services and technologies to our customers. We may focus our resources on technologies, services or products that are not widely accepted or commercially viable, or on operational processes that that are not profitable even after significant up-front investment of our resources such as occurred with our previously disclosed decisions to shut down our Israel and McKeesport, PA investments. Our results are subject to risks related to our significant investments but if we are unable to develop and scale up new technologies, products, and services to meet the needs of our customers, our financial results would be adversely affected.

AN INJURY TO OR DEATH OF ONE OF OUR EMPLOYEES COULD RESULT IN MATERIAL LIABILITIES TO THE COMPANY.

The industrial activities conducted at our and our customer’s facilities present significant risk of serious injury or death to our employees, customers or visitors to our operations, notwithstanding our efforts to comply with safety regulations. We may be unable to avoid material liabilities for an injury or death, and our workers’ compensation and other insurance policies may not be adequate or may not continue to be available on terms acceptable to us, or at all, which could result in material liabilities to us.

THE EFFECTS OF PROVIDING WARRANTIES AND PERFORMANCE GUARANTEES FOR EQUIPMENT OR CCS PROVIDING PAYMENT AND PERFORMANCE GUARANTEES OF ITS RC FACILITIES ARE LARGELY UNKNOWN AND COULD ADVERSELY AFFECT OUR FINANCIAL CONDITION.

Providing warranties that generally do not extend beyond 12 months from the installation date have been and will likely continue to be an integral part of successful sales of our products and services. Providing certain performance guarantees during a discrete performance testing period that generally do not extend beyond six months from the initial test date have been and will likely continue to be an integral part of successful sales of our products and services. Guarantees with respect to our ACI and DSI systems typically require the equipment to meet stated injection rates of a specified or approved absorbent or alkali material. In some cases, guarantees might require that emissions of certain pollutants (such as mercury) be reduced by a specified amount if certain operating parameters of the generating facility, including the nature of the coal burned, are met. Such guarantees generally require us to spend amounts up to the value of the sales contract to “make right” the performance of the ACI or DSI system if the guaranteed level of performance is not achieved. In 2014 and 2015, our customers have sought stronger guarantees and remedies. Although we believe compliance with these stronger guarantees and remedies is probable, these stronger guarantees and remedies place us at greater risk. In addition to guarantees on ACI and DSI systems we sell, CCS indemnifies certain utilities and lessees of RC facilities for particular risks associated with the operations of certain facilities. We have provided limited joint and several guarantees of CCS’s obligations under those leases. Any substantial payments made under such guarantees could have a material adverse effect on our financial condition, results of operations and cash flows.

MATERIAL ADJUSTMENTS PURSUANT TO DEPARTMENT OF ENERGY ("DOE") AUDITS OF OUR PAST PERFORMANCE COULD HAVE A DETRIMENTAL IMPACT ON OUR BUSINESS.

Certain of our completed and current contracts awarded by the DOE and related industry participants remain subject to government audits. Our historical experience with these audits has not resulted in significant adverse adjustments to amounts previously received; however audits for the years 2010 and later have not been finalized. If the results of future audits require us to repay material amounts, our results of operations and business would likely suffer material adverse impacts.

CHANGES IN TAXATION RULES OR FINANCIAL ACCOUNTING STANDARDS COULD ADVERSELY AFFECT OUR RESULTS OF OPERATIONS OR FINANCIAL CONDITION.

Changes in taxation rules and accounting pronouncements (and changes in interpretations of accounting pronouncements) have occurred and may occur in the future. A change in existing taxation rules, particularly those related to Section 45 tax credits or the ability of taxpayers to benefit from tax credits or Net Operation Losses ("NOL") or accounting standards could have an adverse effect on our reported or future results of operations or financial condition and could also impact our businesses that generate tax credits.

INFORMATION TECHNOLOGY VULNERABILITIES AND CYBERATTACKS ON OUR NETWORKS COULD HAVE A MATERIAL ADVERSE IMPACT ON OUR BUSINESS.

We rely upon information technology to manage and conduct business, both internally and with our customers, suppliers and other third parties. Internet transactions involve the transmission and storage of data, including in certain instances customer and supplier business information. Thus, maintaining the security of computers and other electronic devices, computer networks and data storage resources is a critical issue for us and our customers and suppliers, because security breaches could result in reduced or lost ability to carry on our business and loss of and/or unauthorized access to confidential information. We have limited personnel and other resources to address information technology reliability and security of our computer networks and respond to known security incidents to minimize potential adverse impact. Experienced hackers, cybercriminals and perpetrators of threats may be able to penetrate our network security and misappropriate or compromise our confidential information or that of third parties, create system disruptions or cause shutdowns. These perpetrators of cyberattacks also may be able to develop and deploy viruses, worms, malware and other malicious software programs that attack our information and networks or otherwise exploit any security vulnerabilities of our information and networks. Techniques used to obtain unauthorized access to or sabotage systems change frequently and often are not recognized until long after being launched against a target so that we may be unable to anticipate these techniques or to implement adequate preventative measures. A breach of our IT systems and security measures as a result of third-party action, malware, employee error, malfeasance or otherwise could materially adversely impact our business and results of operations and expose us to customer, supplier, and other third party liabilities.

WE HAVE MADE AND MAY MAKE FUTURE ACQUISITIONS OR FORM PARTNERSHIPS AND JOINT VENTURES WHICH INVOLVE NUMEROUS RISKS THAT COULD IMPACT OUR FINANCIAL CONDITION, RESULTS OF OPERATIONS AND CASH FLOWS.

Our strategy may include expanding our scope of products and services organically or through selective acquisitions, investments or creating partnerships and joint ventures. We have acquired, and may selectively acquire, other businesses, product or service lines, assets or technologies that are complementary to our business. We may be unable to find or consummate future acquisitions at acceptable prices and terms or we may be unable to integrate existing or future acquisitions effectively and efficiently and may need to divest those acquisitions as we did with our acquired operations in Israel and fabrication facility in McKeesport, PA. We continually evaluate potential acquisition opportunities in the ordinary course of business. Acquisitions involve numerous risks, including among others:

- Integration difficulties including challenges and costs associated with implementing systems and processes to comply with requirements of being part of a publicly traded company;
- diverting management’s attention from normal daily operations of the business;
- entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- unanticipated costs and exposure to undisclosed or unforeseen liabilities or operating challenges;

- potential loss of key employees and customers of the acquired businesses, product or service lines, assets or technologies;
- our ability to properly establish and maintain effective internal controls over an acquired company; and
- increasing demands on our operational and information technology systems.

Although we conduct what we believe to be a prudent level of investigation regarding the operating and financial condition of acquisitions we have made, an unavoidable level of risk remains regarding their actual operating and financial condition. Until we actually assume operating control of these acquisitions, we may not be able to ascertain their actual value, costs or exposures to liabilities. This is particularly true with respect to acquisitions outside the United States.

In addition, acquisitions of businesses may require additional debt or equity financing, resulting in additional leverage or dilution of ownership. Our loan agreements contains certain covenants that limit, or that may have the effect of limiting, among other things acquisitions, capital expenditures, the sale of assets and incurrence of additional indebtedness.

CUSTOMERS MAY CANCEL OR DELAY PROJECTS AND OUR BACKLOG MAY NOT BE INDICATIVE OF OUR FUTURE REVENUE.

Customers may cancel or delay projects for reasons beyond our control. Our orders normally contain cancellation provisions that permit us to recover our costs, and, for most contracts, a portion of our anticipated profit if a customer cancels an order. If a customer cancels an order, we have to recognize our costs and revenues immediately and may not achieve the full amount of our backlog. If projects are delayed, the timing to recognize our revenues, particularly when using the completed contract method of accounting, will be adversely impacted and projects may remain in our backlog for extended periods of time. Revenue recognition can occur over long periods of time and is subject to unanticipated delays and quarterly fluctuations which may also impact quarterly backlog. As a result, our backlog may not be indicative of our future revenues.

OUR SHORT-TERM LOAN AGREEMENT MATURES ON APRIL 22, 2016 AND ALLOWS OUR LENDERS TO REQUIRE REPAYMENT OF OUR DEBT AT A PREMIUM IF CERTAIN EVENTS, INCLUDING EVENTS OF DEFAULT OR A CHANGE OF CONTROL, OCCUR.

Our short term loan agreement matures on April 22, 2016 and may become due earlier based on certain customary events requiring mandatory prepayment, including upon certain asset sales or receipts of certain types of cash proceeds outside the ordinary course of business, upon a change of control, and upon a default. Prepayments will, subject to certain exceptions, be required to be paid with a prepayment premium of 4% except in the case of a change of control, in which case the prepayment premium is 1%. One of the events of default is if the Company fails to file all periodic reports with the SEC by March 30, 2016. Despite the Company's best efforts, our ability to file periodic reports is also dependent on factors beyond our control. If we are unable to refinance or extend the loan or engage in other transactions to generate the necessary cash flow to pay our loan at maturity or due to a mandatory prepayment event, we may not have sufficient funds to pay such indebtedness, including prepayment penalties, and our lenders would be entitle to proceed against the collateral securing the indebtedness, which includes substantially all of our assets, to the extent permitted by the short term loan agreement and applicable law.

RISKS RELATING TO THE RESTATEMENTS OF OUR CONSOLIDATED FINANCIAL STATEMENTS (THE “RESTATEMENT”)

WE ARE EXPOSED TO RISKS RELATING TO EVALUATIONS OF OUR INTERNAL CONTROL OVER FINANCIAL REPORTING REQUIRED BY SECTION 404 OF THE SARBANES-OXLEY ACT OF 2002.

We are required to comply with Section 404 of the Sarbanes-Oxley Act of 2002. In August of 2012, management determined that the Company improperly classified certain equity interests included within the then consolidated CCS financial statements and that the Company should have also recognized a full valuation allowance against its net deferred tax assets. Management made this determination after consultation with the Company’s Board of Directors, Audit Committee, independent registered public accounting firm and outside tax experts. As a result of these determinations, in October of 2012, the Company restated its consolidated financial statements as of and for the years ended December 31, 2010 and 2011 and the quarterly periods ended March 31, 2011, June 30, 2011, September 30, 2011, March 31, 2012 and June 30, 2012.

As previously disclosed, since April 2014, the Company has been engaged in an ongoing accounting review and in November 2014, management determined that the Company’s investment in CCS should be accounted for using the equity method of accounting, as opposed to CCS being consolidated in the Company’s financial statements.

Management made this determination based on a review of accounting guidance related to Variable Interest Entities ("VIEs") and the specific facts and circumstances related to our investment in CCS.
The accounting review also identified matters impacting the restatement such as adjustments related to equity method accounting, revenue recognition, settlement and royalty indemnity accounting, stock based compensation and other adjustments, as further described in Note 2 to the Company's Consolidated Financial Statements in this Form 10-K.

As a result of these matters, the Company is restating its selected financial data for the years ended December 31, 2010 and 2011 and 2012, its consolidated financial statements for the year ended December 31, 2012, and the unaudited quarterly financial information for the quarterly periods ended March 31, 2013, June 30, 2013, and September 30, 2013.

Management determined that the issues leading to the restatements arose because of material weaknesses in the Company’s internal control over financial reporting. A “material weakness” is a control deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. Management has taken steps to remediate the material weaknesses that it identified, but as of the date of this filing, the remediation of these material weaknesses is ongoing. Failure to comply with Section 404 or the identification of any further, or un-remediated, material weakness may cause our financial statements to be inaccurate, investors to lose confidence in our financial statements, and our stock price to be adversely affected. In addition, we may be subject to additional stockholder litigation, additional increases in insurance costs, and more limited access to the capital markets, and our stock price may be adversely affected.

AUDIT, INVESTIGATION, AND LEGAL AND EXPERT SERVICES REGARDING THE RE-AUDIT, RESTATEMENT AND LEGAL PROCEEDINGS HAS REQUIRED SUBSTANTIAL ATTENTION FROM THE BOARD OF DIRECTORS AND HAS DIVERTED FINANCIAL RESOURCES AWAY FROM THE COMPANY AND MANAGEMENT'S ATTENTION AWAY FROM OUR USUAL BUSINESS OPERATION AND MAY CONTINUE TO ADVERSELY AFFECT OUR BUSINESS, RESULTS OF OPERATIONS AND FINANCIAL CONDITION.

In March 2014, the Company, under the oversight of our Audit Committee with the assistance of outside counsel, began an internal investigation into accounting matters related to the Re-audit and Restatement. The internal investigation is currently aligned with our efforts to cooperate with the SEC Inquiry, as defined and described under Item 3 of this Form 10-K. Our Board of Directors, Audit Committee and members of management have devoted and expect to continue to devote substantial internal and external resources to investigation and cooperation with the SEC Inquiry, the Re-audit and Restatement processes, remediation efforts and the preparation and filing of this Form 10-K and future periodic reports. As a result of these efforts, we have incurred and expect that we will continue to incur significant incremental fees and expenses for additional auditor services, financial and other consulting services and legal services, as well as the implementation and maintenance of systems and processes that will need to be updated, supplemented or replaced. These expenses, as well as the substantial time devoted by our Board and management towards identifying, addressing and remediating any internal weaknesses and legal costs related to investigation and related litigation, claims and other actions related to the Restatement, have had and could continue to have a material adverse effect on our business, results of operations and financial condition.

WE ARE THE SUBJECT OF AN ONGOING SEC INVESTIGATION, WHICH HAS DIVERTED AND COULD CONTINUE TO DIVERT MANAGEMENT’S FOCUS, RESULT IN SUBSTANTIAL INVESTIGATION EXPENSES AND HAVE AN ADVERSE IMPACT ON OUR REPUTATION, FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

As a result of filing a 2014 Form 10-K and not filing a 2013 Form 10-K, current and prospective investors will be unable to review certain financial and informational disclosures that would have been contained in the full periodic reports that we did not file. As previously disclosed, our management and Audit Committee determined to restate our financial results for the years ended December 31, 2011 to 2012 and the first three quarters of 2013. Beginning with the fiscal year ended December 31, 2013 through September 30, 2015, we did not file Annual and Quarterly Reports on Forms 10-K and Forms 10-Q. As a result, the Company was notified of the SEC Inquiry, described under Item 3 of this Form 10-K, on April 7, 2014. We are cooperating with the SEC and have incurred significant legal and accounting expenditures in connection with our internal investigation efforts and response to the SEC Inquiry. However, because we are filing a 2014 Form 10-K and not filing a 2013 Form 10-K, current and prospective investors will be unable to review certain financial and informational disclosures that would have been contained in the full periodic reports that we did not file and such reporting deficiencies may be considered by the SEC when assessing the Company’s compliance with federal securities laws.

We are unable to predict how long the SEC Inquiry will continue or whether, at the conclusion of its investigation, the SEC will seek to impose fines or take other actions against us. Any action by the SEC could result in sanctions against us and/or certain of our current and former officers and directors. A protracted investigation could impose substantial additional costs and distractions, regardless of its outcome. Furthermore, publicity surrounding the foregoing or any enforcement action as a result of the SEC's investigation, even if ultimately resolved favorably for us, could have an adverse impact on our reputation, business, financial condition, results of operations and cash flows.

INABILITY TO PREPARE AND TIMELY FILE PERIODIC REPORTS LIMITS OUR ACCESS TO THE PUBLIC MARKETS TO RAISE DEBT OR EQUITY CAPITAL AND COULD RESULT IN INCREASED TRANSACTION COSTS.

We are required to comply with Section 13 of the Securities Exchange Act of 1934. Beginning December 31, 2013 through September 30, 2015, we did not file Annual and Quarterly Reports on Form 10–Ks and Form 10-Qs. Because we have not remained current in our reporting requirements with the SEC, we are limited in our ability to access the public markets to raise debt or equity capital. Our limited ability to access the public markets could prevent us from implementing business strategies that we may otherwise believe are beneficial to our business. Until one year after the date we maintain compliance with our SEC reporting obligations, we will be ineligible to use shorter and less costly filings, such as Form S–-3, to register our securities for sale. We may use Form S-1 to register a sale of our stock to raise capital, but doing so would likely increase transaction costs and adversely affect our ability to raise capital in a timely manner.

OUR ACCESS TO CAPITAL AND LIQUIDITY MAY CONTINUE TO BE IMPACTED.

If we do not receive sufficient royalty payments or distributions from CCS to repay the obligations of our short-term loan agreement while maintaining sufficient liquidity to meet our operating requirements, we may need to extend or refinance the short-term loan or seek alternative sources of capital, under less favorable terms and conditions which could have a material adverse effect on our business, results of operations and financial condition.

RISKS RELATING TO OUR COMMON STOCK

OUR STOCK PRICE MAY CONTINUE TO BE VOLATILE.

The market price of our common stock fluctuates significantly. The market price of our common stock may be affected by numerous factors, including:

- Actual or anticipated fluctuations in our operating results and financial condition;
- Changes in laws or regulations and court rulings and trends in our industry;
- CCS's ability to lease or sell RC facilities;
- Announcements of sales awards;
- Changes in supply and demand of components and materials;
- Adoption of new tax or accounting standards affecting our industry;
- Changes in financial estimates by securities analysts;
- Perceptions of the value of corporate transactions; and
- The degree of trading liquidity in our common stock and general market conditions.

From December 31, 2012 to December 31, 2015, the closing price of our common stock ranged from $3.70 to $29.00 per share (retroactively restated to reflect the two-for-one stock split of our common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014). Significant declines in the price of our common stock could impede our ability to obtain additional capital, attract and retain qualified employees and reduce the liquidity of our common stock.

In addition, the stock market has from time to time experienced significant price and volume fluctuations that have particularly affected the market prices for the common stock of similarly staged companies. These broad market fluctuations may adversely affect the market price of our common stock.

DELISTING OF OUR COMMON STOCK ON NASDAQ AND QUOTATION ON THE OTC BULLETIN BOARD MAY CONTINUE TO DECREASE THE VALUE OF OUR COMMON STOCK AND PREVENT CERTAIN INVESTORS FROM INVESTING OR ACHIEVING A MEANINGFUL DEGREE OF LIQUIDITY.

On January 30, 2015, we received notification from the NASDAQ Capital Market informing us of their decision to suspend the trading of our common stock on the NASDAQ on February 3, 2015. Our common stock was finally delisted on March 30, 2015. As a result, our common stock is now quoted on the Over– the-Counter Bulletin Board ("OTCBB") or the "pink sheets" traded under the symbol "ADES." Based upon the fact that our common stock is no

longer registered for trading on a national automated quotation system, and the value of the common stock held has decreased in value, there may be investment loss for stockholders or certain stockholders may no longer be permitted to invest in our common stock. Bid quotations on the OTCBB can be sporadic and may not provide any meaningful liquidity to investors. An investor may find it difficult to dispose of shares or obtain accurate quotations as to the market value of the common stock. As a result of these limitations, our common stock has fewer market makers, lower trading volumes and larger spreads between bid and asked prices than securities listed on a

national stock exchange or automated quotation system would typically have. These factors may result in higher price volatility and less market liquidity for our common stock. We cannot assure you that our common stock will be listed on a national exchange such as the NASDAQ Stock Market, the New York Stock Exchange, or another securities exchange once we become current in our filing obligations with the SEC.

OUR CERTIFICATE OF INCORPORATION AND BYLAWS CONTAIN PROVISIONS THAT MAY DELAY OR PREVENT AN OTHERWISE BENEFICIAL TAKEOVER ATTEMPT OF OUR COMPANY.

Certain provisions of our certificate of incorporation and bylaws could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders. These include provisions that:

- Limit the business at special meetings to the purpose stated in the notice of the meeting;
- Authorize the issuance of "blank check" preferred stock, which is preferred stock with voting or other rights or preferences that could impede a takeover attempt and that the board of directors can create and issue without prior stockholder approval;
- Establish advance notice requirements for submitting nominations for election to the board of directors and for proposing matters that can be acted upon by stockholders at a meeting; and
- Require the affirmative vote of the "disinterested" holders of a majority of our common stock to approve certain business combinations involving an "interested stockholder" or its affiliates, unless either minimum price criteria and procedural requirements are met, or the transaction is approved by a majority of our "continuing directors" (known as "fair price provisions").

These provisions, alone or in combination with each other, may discourage transactions involving actual or potential changes of control, including transactions that otherwise could involve payment of a premium over prevailing market prices to holders of our common stock, or could limit the ability of our stockholders to approve transactions that they may deem to be in their best interest. On February 1, 2015, we effected a stockholder rights plan that expires on February 1, 2016, as discussed in Note 13 of the Consolidated Financial Statements in this Form 10-K.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Office and Warehouse Leases

As of December 31, 2014, we leased office, warehouse and laboratory space in Highlands Ranch, Colorado, and office and warehouse space in McKeesport, Pennsylvania for a total of approximately 308,788 square feet under six leases. Original lease terms ranged from three to seven years. Certain of these leases have options permitting renewals for additional periods.

The Company's lease of approximately 37,102 square feet of office space in Highlands Ranch, Colorado was entered into in 2012 and expires in February 2019 with the option to renew for two additional five-year periods. The lease included an abatement of base rent and operating expenses for the first six months and abatement of base rent for an additional thirteen months. The lease also included a one-time tenant improvement allowance in an amount up to approximately $0.7 million. Leasehold improvements are being amortized over the base term of the lease.

The Company's lease of approximately 15,035 square feet of warehouse space in Highlands Ranch, Colorado was entered into in 2012 and expires in February 2019 with the option to renew for two additional five-year periods. The lease also included a one-time tenant improvement allowance in an amount up to approximately $0.1 million. Leasehold improvements are being amortized over the base term of the lease.

The Company's lease of approximately 50,069 square feet of warehouse space in Highlands Ranch, Colorado was entered into during 2012 and was initially set to expire in October 2017. Subsequent to December 31, 2014, the Company entered into an agreement to terminate the lease agreement. The Company did not incur lease termination costs in connection with this agreement.

The Company's lease of approximately 138,187 square feet of office and manufacturing space in McKeesport, Pennsylvania was entered into in 2013 and expires in September 2018 and includes the option to renew for one additional five-year term.

The Company's lease of approximately 40,696 square feet of manufacturing and office space in McKeesport, Pennsylvania was entered into in 2013 and expires in April 2016.
The Company's lease of approximately 27,699 square feet of shop space in McKeesport Pennsylvania was entered into in 2013 and expires in June 2016 and includes the option to renew for one additional three-year period.

See Note 15 to our 2014 Consolidated Financial Statements in Item 8 of this Form 10-K for information with respect to our lease commitments as of December 31, 2014.

Item 3. Legal Proceedings

Securities class action lawsuit: United Food and Commercial Workers Union v. Advanced Emissions Solutions, Inc., No. 14-cv-01243-CMA-KMT (U.S. District Court, D. Colo.)

A class action lawsuit against ADES and certain of its current and former officers is pending in the federal court in Denver, Colorado. This lawsuit and a companion case were originally filed in May 2014. On February 19, 2015, the Court consolidated these cases and appointed the United Foods and Commercial Workers Union and Participating Food Industry Employers Tri-State Pension Fund as lead plaintiff and approved its selection of the law firms. The consolidated case is now captioned United Food and Commercial Workers Union v. Advanced Emissions Solutions, Inc., No. 14-cv-01243-CMA-KMT (U.S. District Court, D. Colo.).

The lead plaintiff filed “Lead Plaintiff’s Consolidated Class Action Complaint” on April 20, 2015 (the “Consolidated Complaint”). The Consolidated Complaint names as defendants the Company and certain current and former Company officers.

Plaintiffs allege that ADES and other defendants misrepresented to the investing public ADES’s financial condition and its financial controls to artificially inflate and maintain the market price of ADES’s common stock. The Consolidated Complaint alleges two claims for relief for: 1) alleged violations of Section 10(b) of the Securities Exchange Act of 1934 and Rule 10b-5, and 2) control person liability under Section 20(a) of the Exchange Act.

The lawsuit seeks unspecified monetary damages together with costs and attorneys’ fees incurred in prosecuting the class action, among other relief. The Consolidated Complaint alleges a class period covering all purchasers or acquirers of the common stock of ADES or its predecessor-in-interest during the proposed class period from May 12, 2011 through January 29, 2015.

Defendants filed a motion to dismiss the Consolidated Complaint on June 19, 2015, contending the Consolidated Complaint: 1) fails to meet the strict pleading standards required for Section 10(b) claims; and 2) fails to establish the primary violation required for any claim of secondary (control person) liability. Plaintiffs filed a response in opposition to this motion on July 2, 2015 and Defendants filed their reply brief on July 16, 2015. The Court has not yet ruled on this motion.

Stockholder derivative lawsuits: In Re Advanced Emissions Solutions, Inc. Shareholder Derivative Litigation, No. 2014CV-30709 (District Court, Douglas County, Colorado) (consolidated actions).

Consolidated stockholder derivative claims against certain of the Company's current and former officers and directors, along with the Company as a "nominal defendant" are pending in the District Court for Douglas County, Colorado, and are currently stayed.

In June and July 2014 stockholder derivative actions were filed in the Colorado District Courts for Douglas County and for the City and County of Denver. By agreement of the parties, the case in the Denver District Court was transferred to the Douglas County District Court and the cases were consolidated.

In separate complaints the plaintiffs allege breach of fiduciary duties, waste of corporate assets, and unjust enrichment against the defendants for their allegedly utilizing improper accounting techniques and failing to maintain effective internal controls that together resulted in materially inaccurate financial statements, from which, incentive compensation was derived and paid. Plaintiffs demand, on behalf of the Company, unspecified monetary damages, “appropriate equitable relief,” and the costs and disbursements of the action, including attorneys', accountants and expert fees, costs, expenses, and restitution, as well as certain corporate governance changes.

On August 28, 2014, the Colorado state court approved a Stipulation and proposed Order Consolidating Actions, Appointing Co-Lead Plaintiffs and Co-Lead Counsel, and Staying Consolidated Action. Under that Order the consolidated derivative

actions are stayed at least 30 days after a decision by the U.S. District Court on Defendants' motion to dismiss the operative complaint in the securities class action described above. Any party has the right to move to lift the stay on 30-days' written notice to the other parties.

SEC Inquiry

On April 7, 2014, the SEC's Division of Enforcement informed the Company that it had initiated an inquiry to determine if violations of the federal securities laws have occurred (the "SEC Inquiry"), and in September 2014 the SEC issued a formal order of investigation. The SEC Inquiry generally pertains to the restatement of the Company's financial statements and internal controls processes, as described in the Explanatory Note and Note 2 of the Consolidated Financial Statements included within Item 8 of this Form 10-K. The Company is fully cooperating with the SEC and has provided information and documents to the SEC on an ongoing basis. To date, the SEC has not asserted any formal claims. While we cannot predict the duration or outcome of the SEC Inquiry, it could result in the payment of monetary penalties and other relief.

We believe that it is unlikely that the outcome of each of the legal proceedings discussed above will have a material adverse effect on our Company and its subsidiaries as a whole, notwithstanding that the unfavorable resolution of any matter may have a material effect on our net earnings (if any) in any particular quarter. However, we cannot predict with any certainty the final outcome of any legal proceedings as described in the paragraphs above, and there can be no assurance that the ultimate resolution of any such matter will not have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The number of shares and per share amounts below have been retroactively restated to reflect the two-for-one stock split of the Company’s common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014.

Price Range of Common Stock

As of December 31, 2014, our common stock traded on the NASDAQ Capital Market under the symbol “ADES.” The table below sets forth the price range of our common stock for each quarter of 2014 and 2013:

	2014		2013	
	High	Low	High	Low
1st Quarter	$27.90	$22.53	$13.92	$8.91
2nd Quarter	$25.89	$18.10	$21.06	$11.93
3rd Quarter	$23.90	$19.33	$22.20	$17.75
4th Quarter	$23.03	$19.24	$29.00	$18.10

The Company's common stock traded on the NASDAQ Capital Market ("NASDAQ") under the symbol "ADES" through February 2, 2015. Effective February 3, 2015, NASDAQ suspended trading in our securities. Our securities were officially delisted from the NASDAQ on March 30, 2015. Our shares are currently quoted on the OTC Pink® Marketplace - Limited Information Tier ("OTC") market under the symbol "ADES". The high and low bid information for each quarter since January 1, 2015, as quoted on the NASDAQ through February 2, 2015 and on the OTC beginning February 3, 2015, is as follows:

	2015	
	High	Low
1st Quarter	$21.86	$9.40
2nd Quarter	$17.00	$12.20
3rd Quarter	$13.00	$6.30
4th Quarter	$7.14	$3.70

The OTC quotations above reflect inter-dealer prices, without retail mark-up, markdown or commissions and may not represent actual transactions. Such quotes are not necessarily representative of actual transactions or of the value of the Company’s securities.

The trading volume for the Company’s common stock is relatively limited. There is no assurance that an active trading market will continue to provide adequate liquidity for the Company’s existing stockholders or for persons who may acquire the Company’s common stock in the future.

Holders

The number of record holders of our common stock as of February 18, 2016 was approximately 1,052. The approximate number of beneficial stockholders is estimated at 2,253.

Dividends

We have not paid cash dividends since inception. In addition, Energy Capital Partners I, LP and its affiliated funds ("ECP") Settlement Agreement signed in November 2011 restricts our ability to pay dividends without concurrently increasing our

letters of credit in an amount equal to 50% of the fair market value of the dividend. Should we pay dividends, the payment of such dividends will be dependent upon earnings, financial condition and other factors considered relevant by our Board and will be subject to limitations imposed under Delaware law. The Credit Agreement signed October 22, 2015 with Franklin Mutual Quest Fund and MFP Investors, LLC as initial lenders also restricts our ability to pay dividends unless specific exceptions are met. We currently have no plan in place to pay cash dividends.
Securities Authorized for Issuance under Equity Compensation Plans

The disclosure required by this Item is included under Item 11 of this Form 10-K.
Purchases of Equity Securities by the Company and Affiliated Purchasers
Neither we nor any "affiliated purchaser," as defined in SEC Rule 10b-18(a)(3), purchased any of our equity securities during the year ended December 31, 2013 and 2014.

Item 6. Selected Financial Data
FIVE-YEAR SUMMARY OF SELECTED FINANCIAL DATA

The following selected financial data are derived from the audited Consolidated Financial Statements for the years ended December 31, 2014, 2013 and 2012 (Restated) and from the unaudited restated consolidated financial statements of the Company for the years ended December 31, 2011 (Restated) and 2010 (Restated) and should be read in conjunction with Item 1A Risk Factors, Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations, and our Consolidated Financial Statements and the related notes included in Item 15 Financial Statements and Supplementary Data of this Form 10-K.

	Years Ended December 31,				
(in thousands)	2014	2013	2012 (Restated)	2011 (Restated)	2010 (Restated)
Statement of operations data [1]:	[4] [6]	[4]	[4]	(unaudited) [5]	(unaudited) [5]
Revenues	$16,923	$13,286	$16,316	$21,764	$16,087
Earnings (loss) from equity method investments	42,712	15,502	813	28,795	(4,601)
Royalties, related party	6,410	2,505	1,446	—	—
Net income (loss)	1,387	(15,987)	(13,129)	(30,811)	(30,691)
Earnings (loss), per common share, basic [2] [3]	0.06	(0.78)	(0.65)	(1.91)	(2.06)
Earnings (loss), per common share, diluted	0.06	(0.78)	(0.65)	(1.91)	(2.06)
Dividends declared per common share	—	—	—	—	—

	As of December 31,				
(in thousands)	2014	2013	2012 (Restated)	2011 (Restated)	2010 (Restated)
Balance sheet data [1]:	[4] [6]	[4]	[4]	(unaudited)	(unaudited)
Total assets	$93,699	$73,524	$28,885	$42,609	$30,827
Long-term debt	15,910	—	—	—	—
Stockholders' deficit	(697)	(6,167)	(21,456)	(9,384)	(12,326)

(1) As disclosed in the Explanatory Note, Item 7 and Note 2 of the Consolidated Financial Statements within this Form 10-K, the Company has restated selected financial data as of and for the years ended December 31, 2012, 2011 and 2010.
(2) The number of shares and per share amounts have been retroactively restated to reflect the two-for-one stock split of the Company's common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014.
(3) The computation of diluted EPS was the same as basic EPS as the inclusion of outstanding options or unvested equity instruments would have been anti-dilutive for the years ended December 31, 2013, 2012, 2011 and 2010.

(4) On August 31, 2012, BCSI acquired and consolidated the assets of two related private companies engaged in the DSI business, as described in Note 9 of the Consolidated Financial Statements within this Form 10-K.

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(5) As described in the Explanatory Note, Item 7 and Note 15 of the Consolidated Financial Statements within this Form 10-K, during 2011, the Company entered into settlement agreements with various third parties related to litigation regarding one of the Company's equity method investments, whereby the Company paid a lump-sum payment totaling $33 million in the third quarter of 2011. In addition, the Company agreed to pay an additional $7.5 million over a three-year period with payments commencing in the second quarter of 2012, payable in three equal installments. The Company also relinquished its investment in the equity method entity and was also required to pay additional damages in the form of future royalty payments related to certain future revenues generated from the equity method investment through the second quarter of 2018 (the "Royalty Award"). Included within the Restated selected financial data, the Company has recognized the expense related to the entire settlement agreements, offset by a gain on relinquishment of its investment in the equity method entity, resulting in net expenses of $48.3 million during the year ended December 31, 2011.
Additionally, as of and during the year ended December 31, 2011 and 2010, the Company recognized equity method losses, from the equity method investment discussed above of $8.8 million and $8.2 million, respectively. This investment was relinquished in 2011 and thus had no impact to the years ended December 31, 2012, 2013 and 2014, respectively.
(6) As described in Note 8 of the Consolidated Financial Statements within this Form 10-K, on February 10, 2014, the Company purchased a 24.95% membership interest in RCM6, LLC ("RCM6"), which owns a single RC facility that produces RC that qualifies for Section 45 tax credits, from CCS through an up-front payment of $2.4 million and an initial note payable to CCS of $13.3 million. During the year ended December 31, 2014, the Company recognized equity method losses related to RCM6 of $4.5 million.

The Notes to the Consolidated Financial Statements contain additional information about charges resulting from other operating expenses and other income (expense) which affect the comparability of information presented.
QUARTERLY FINANCIAL DATA – UNAUDITED

	For the Quarter Ended			
(in thousands, except per share data)	December 31, 2014	September 30, 2014	June 30, 2014	March 31, 2014
Revenues	$3,693	$9,072	$3,175	$983
Cost of revenues, exclusive of operating expenses shown below	2,903	6,512	1,754	451
Other operating expenses	16,335	12,839	9,841	8,102
Operating loss	(15,545)	(10,279)	(8,420)	(7,570)
Earnings from equity method investments	20,693	5,603	9,791	6,625
Royalties, related party	2,154	2,275	849	1,132
Other income (expenses), net	(2,484)	(1,185)	(1,199)	(757)
Income (loss) before income tax expense	4,818	(3,586)	1,021	(570)
Income tax expense	141	113	29	13
Net income (loss)	$4,677	$(3,699)	$992	$(583)
Earnings (loss) per common share – basic	$0.21	$(0.17)	$0.05	$(0.03)
Earnings (loss) per common share – diluted	$0.21	$(0.17)	$0.05	$(0.03)
Weighted-average number of common shares outstanding (1)				
Basic	21,563	21,536	21,477	21,465
Diluted	21,947	21,536	22,035	21,465

(1) The number of shares and per share amounts have been retroactively restated to reflect the two-for-one stock split of the Company's common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014.

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(in thousands, except per share data)	For the Quarter Ended December 31, 2013	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
Revenues	$1,228	$3,470	$6,427	$2,161
Cost of revenues, exclusive of operating expenses shown below	758	5,970	4,482	2,458
Other operating expenses	9,442	7,206	7,363	7,865
Operating income (Loss)	(8,972)	(9,706)	(5,418)	(8,162)
Earnings from equity method investments	3,095	9,684	2,400	323
Royalties, related party	748	730	356	671
Other income (expenses), net	(603)	(341)	(250)	(79)
Income (loss) before income tax expense	(5,732)	367	(2,912)	(7,247)
Income tax expense	147	11	88	217
Net income (loss)	$(5,879)	$356	$(3,000)	$(7,464)
Earnings (loss) per common share – basic	$(0.29)	$0.02	$(0.15)	$(0.38)
Earnings (loss) per common share – diluted	$(0.29)	$0.02	$(0.15)	$(0.38)
Weighted-average number of common shares outstanding (1)				
Basic	20,594	19,937	19,916	19,899
Diluted	20,594	20,473	19,916	19,899

(1) The number of shares and per share amounts have been retroactively restated to reflect the two-for-one stock split of the Company's common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014.

Amounts presented on a quarterly basis in the preceding tables differ from amounts included in the Company's Form 10-Q filings related to the applicable periods due to amounts that have been restated as described in Note 2 in the Consolidated Financial Statements.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Restatement of Financial Statements

This Form 10-K for the year ended December 31, 2014 filed by Advanced Emissions Solutions, Inc. together with its consolidated subsidiaries (collectively, "ADES" or the "Company," or "we," "us" or "our" unless the context indicates otherwise) includes the restatement of certain of our previously filed consolidated financial statements and data as explained herein. It also amends previously filed disclosures, including those for management's discussion and analysis of financial condition and results of operations, as well as other disclosures, for certain periods presented in this Form 10-K. Accordingly, this filing includes more information than would routinely be included in a filing on Form 10-K, in order to provide stockholders a composite presentation of information for prior periods during which we were not making periodic filings with the Securities and Exchange Commission, or SEC. In addition, because of the changes we have made in our business since the end of 2014, the information relating to our business and related matters includes certain information for periods after December 31, 2014. A discussion of the restatement of our previously filed consolidated financial statements and data is included within the Explanatory Note, Item 6 and Item 8 of this Form 10-K.

Overview

Pursuant to an Agreement and Plan of Merger, ADES, a Delaware company incorporated in 2011, replaced ADA-ES, Inc. ("ADA") as the publicly-held corporation effective July 1, 2013. As this Annual Report pertains to the year ended December 31, 2014, the term "we", "us" and "our" means ADA for the periods through and including the period ended June 30, 2013, and ADES for the periods beginning on July 1, 2013. For further information on the reorganization, see Note 21 of the Notes to Consolidated Financial Statements included in Part II of this Form 10-K.

The Company is a leader in clean coal technologies and associated specialty chemicals, primarily serving the coal-fueled power plant industry. Our proprietary environmental technologies and specialty chemicals enable power and coal-fired plants to enhance existing air pollution control equipment, minimize mercury, CO_2 and other emissions, maximize capacity, and improve

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operating efficiencies, to meet the challenges of existing and pending emission control regulations. See further discussion of the Company's business within Item 1 of this Form 10-K. Discussion regarding segment information is included within the discussion of our consolidated results. Additionally, discussion related to our reportable segments is included within Item 1 of this Form 10-K and Note 18 of our Consolidated Financial Statements.

Components of Revenue, Expenses and Equity Method Investees

The following briefly describes the components of revenue and expenses as presented in the Consolidated Statement of Operations. Descriptions of the revenue recognition policies are included in Note 1 to the Company's Consolidated Financial Statements.

Revenue and costs of revenue

Equipment sales

Equipment sales represent the sale of activated carbon injection ("ACI") systems to control mercury, dry sorbent injection ("DSI") systems to control SO_2, SO_3, and HCl and electrostatic precipitator ("ESP") liquid flue gas conditioning systems. Revenue from extended equipment contracts is recorded using the completed contract method of accounting.

The Company also enters into other non-extended equipment contracts for which the Company recognizes revenues on time and material contracts as services to build equipment systems are performed or as equipment is delivered.

Consulting services

Consulting services are provided to assist electric power generators and others in planning and implementing strategies to meet the new and increasingly stringent government emission standards requiring reductions in SO_2, NO_x, particulates, acid gases and mercury. This includes demonstrations of our commercial products.

Chemicals and other

The Company sells proprietary chemical blends to coal-fired utilities that allow the respective utilities to comply with the regulatory emissions standards.

Other Operating Expenses

Payroll and benefits

Payroll and benefits costs include personnel related fringe benefits, sales and administrative staff labor costs and stock compensation expenses.

Rent and occupancy

Rent and occupancy costs include rent, insurance, and other occupancy-related expenses.

Legal and professional fees

Legal and professional costs include external legal, audit and consulting expenses.

General and administrative

General and administrative costs include director fees and expenses, bad debt expense and other general costs of conducting business.

Research and development, net

Research and development expense consists of research relating to various projects including the CO_2 capture and control market. The Company enters into contracts with the DOE. These contracts are best-effort-basis contracts and the Company may include industry cost-share partners to offset the costs incurred that are anticipated to be in excess of funded amounts from the DOE. The Company recognizes amounts funded by the DOE and industry partners under

research-and-development-cost-sharing arrangements as an offset to the Company's aggregate research and development expenses within the Research and development, net line in the Consolidated Statements of Operations.

Depreciation and amortization

Depreciation and amortization expense consists of depreciation expense related to property and equipment and the amortization of long lived intangibles.

Other Income (Expense), net

Earnings from equity method investments
Earnings from equity method investments relates to the Company's share of earnings and losses related to its equity method investments.
The Company's equity method earnings in CCS are positively impacted when CCS obtains an investor in a RC facility and receives lease payments from the lessor of the RC facility. If CCS operates a RC facility, the Company's equity method earnings will be negatively impacted as operating RC facilities generate operating losses. However, the Company benefits if it is able to utilize net operating losses and tax credits associated with those losses due to the Company's share of ownership in CCS. These benefits, if utilized, are reported within the Income tax expense line item in the Consolidated Statements of Operations. As of December 31, 2014, we have not been able to utilize tax assets and credits from the production of RC due to our operating losses. The Company's equity method earnings in CCS are negatively impacted due to an annual preferred return to which one of the equity owners is entitled. Therefore, the equity earnings available to the common members of CCS net income (loss) are equal to CCS's net income less the preferred return due to the equity holder.
RCM6 owns a single RC facility that the Company owns 24.95% of and is managed by CCS, whose economics to the Company are consistent with an invested facility discussed above except that the Company is still subject to funding its share of operating losses. The purchase of RCM6 resulted in the Company recording a basis difference related to fixed assets and identifiable intangible assets. The difference between the Company's proportionate share of RCM6's net loss and the Company's equity losses relates to the depreciation and amortization expense recorded by the Company related to the basis difference.

CCSS operates and maintains RC facilities under operating and maintenance agreements. CCS or the lessee of the RC facilities pays CCSS, subject to certain limitations, the costs of operating and maintaining the RC facilities. CCSS also arranges for the purchase and delivery of certain chemical additives necessary for the production of refined coal under chemical agency agreements. The terms of the chemical agency agreements run concurrent with the RC facilities leases. CCSS is also the primary beneficiary of certain RC facilities that are VIE's and therefore consolidates such RC facilities. All net income (loss) associated with these consolidated RC facilities is allocated to the noncontrolling shareholders and therefore does not impact our equity earnings (loss) from CCSS.

Royalties, related party
The Company generates royalties from licensing its M-45™ and M-45-PC™ emission control technologies to CCS. Royalties are earned based upon (i) a percentage of the per-ton, pre-tax margin of RC produced with the M-45 License that produces a valid and verifiable Section 45 Tax Credit, net of certain allocable operating expenses, (ii) a percentage of the Section 45 tax credits claimed, and not invested by a licensee, sublicensee, or licensee affiliate using the M-45 License, net of certain allocable operating expenses and (iii) a percentage of the revenue, net of all direct expenses, received by CCS as a direct result of CCS's exercise of the M-45 License.

Other income (expense), net
The remaining components of other income (expense), net include interest income, interest expense and other miscellaneous items.

The Company records interest expense due to the Company's share of CCS equity method earnings for RC facility leases which are treated as installment sales for tax purposes. IRS section 453A requires taxpayers using the installment method to pay an interest charge on the portion of the tax liability that was deferred under the installment method. We refer to this as 453A interest ("453A interest").

Results of Operations

For comparability purposes, the following tables set forth our results of operations for the periods presented in our annual financial statements included elsewhere in this Form 10-K. The period-to-period comparison of financial results is not necessarily indicative of financial results that may be achieved in future periods.

Year ended December 31, 2014 vs. Year ended December 31, 2013

Our consolidated results comprised the following:

	Years Ended December 31,		Change	
(in thousands, except per share data)	2014	2013	($)	(%)
Revenues:				
Equipment sales	$12,044	$5,747	$6,297	110 %
Consulting services	4,488	6,790	(2,302)	(34)%
Chemicals and other	391	749	(358)	(48)%
Total revenues	16,923	13,286	3,637	27 %
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	9,277	9,459	(182)	(2)%
Consulting services cost of revenue, exclusive of depreciation and amortization	2,203	3,827	(1,624)	(42)%
Chemical and other cost of revenue, exclusive of depreciation and amortization	140	382	(242)	(63)%
Payroll and benefits	20,767	16,228	4,539	28 %
Rent and occupancy	2,468	2,128	340	16 %
Legal and professional fees	14,430	4,534	9,896	218 %
General and administrative	6,066	4,101	1,965	48 %
Research and development, net	1,521	3,237	(1,716)	(53)%
Depreciation and amortization	1,865	1,648	217	13 %
Total operating expenses	58,737	45,544	13,193	29 %
Operating loss	(41,814)	(32,258)	(9,556)	30 %
Other income (expenses):				
Earnings from equity method investments	42,712	15,502	27,210	176 %
Royalties, related party	6,410	2,505	3,905	156 %
Interest income	74	109	(35)	(32)%
Interest expense	(5,725)	(1,338)	(4,387)	328 %
Other	26	(44)	70	(159)%
Total other income (expense), net	43,497	16,734	26,763	160 %
Income (loss) before income tax expense	1,683	(15,524)	17,207	(111)%
Income tax expense	296	463	(167)	(36)%
Net income (loss)	$1,387	$(15,987)	$17,374	(109)%
Earnings (loss) per common share:				
Basic	$0.06	$(0.78)	$0.84	(108)%
Diluted	$0.06	$(0.78)	$0.84	(108)%
Weighted-average number of common shares outstanding:				
Basic	21,554	20,103		
Diluted	22,079	20,103		

Total Revenue and Cost of Revenue

A summary of the components of our revenue and costs of revenue for the years ended December 31, 2014 and 2013 is as follows:

	Years Ended December 31,		Change	
(Amounts in thousands except percentages)	2014	2013	($)	(%)
Revenues:				
Equipment sales	$12,044	$5,747	$6,297	110 %
Consulting services	4,488	6,790	(2,302)	(34)%
Chemicals and other	391	749	(358)	(48)%
Total revenues	16,923	13,286	3,637	27 %
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	9,277	9,459	(182)	(2)%
Consulting services cost of revenue, exclusive of depreciation and amortization	2,203	3,827	(1,624)	(42)%
Chemical and other cost of revenue, exclusive of depreciation and amortization	140	382	(242)	(63)%

Equipment sales and Equipment sales cost of revenue

During the years ended December 31, 2014 and 2013, we entered into 25 and 26 long term (6 months or longer) fixed price contracts to supply ACI systems with aggregate contract values including change orders of $35.8 million and $39.3 million, respectively. The total value per contract may change due to the relative sizes of ACI systems and the contracts related thereto. During the years ended December 31, 2014 and 2013, we completed 15 and two ACI systems, recognizing revenues of $11.1 million and $3.2 million and costs of revenue of $8.1 million and $2.4 million, respectively. We did not recognize any loss provisions related to contracts in 2014 and 2013 related to ACI systems.

During the years ended December 31, 2014 and 2013, we entered into 13 and 24 long term (6 months or longer) fixed price contracts to supply DSI systems and other material handling equipment with contract values including associated change orders of $10.9 million and $46.9 million, respectively. Total value per contract may change due to the relative sizes of DSI systems the contracts related thereto. During the years ended December 31, 2014 and 2013, we completed two and seven DSI systems and five and six other material handling equipment systems, recognizing revenues of $0.6 million and $2.0 million and costs of revenue of $0.8 million and $6.8 million, respectively. Due to potential cost overruns related to certain DSI projects, we expect that the future relationship between revenues and costs may be dissimilar from prior results. Certain of the DSI system long-term fixed price contracts were expected to be completed with losses. As a result, cost of sales included $0.4 million and $4.9 million in loss provisions related to contracts recognized in 2014 and 2013, respectively, related to DSI system contracts.

The remaining changes were due to other equipment projects.

Due to the timing impacts of using the completed contract method of revenue recognition, our revenue and backlog information may not be comparable to the information of our competitors, who do not use the completed contract method. For example, due to the lengthy revenue recognition period we may recognize less revenue during a particular period, but have more backlog. Refer to the calculation of our backlog, included in Item 1 of this Form 10-K filing, to obtain an understanding of future amounts that may be recognized in revenue.

Demand for ACI and DSI system contracts in 2013 and 2014 has been driven by coal fired power plant utilities that need to comply with MATS and MACT standards by 2015. Changes in revenues related to ACI and DSI system contracts fluctuate due to changes in the number of contracts entered into as well as the long-lead time requirements for manufacturing, installation and testing of the equipment and ultimately revenue being recognized. Sales of ACI

and DSI equipment continued to decrease in 2015 as the respective utilities will have needed to comply with the MATS and MACT standards as of that date. However, we also believe that a portion of the ACI and DSI system decrease will be offset beginning in 2016 by new equipment product offerings and new industrial customers that did not exist or were not material as of December 31, 2014 and through the date of these financial statements.

Consulting services and Consulting services cost of revenue

We provided consulting services related to emissions regulations. Revenues decreased year over year due to a decrease in average contract revenue, driven by several large consulting contracts related to regulatory compliance in 2013 that were replaced by smaller scale consulting contracts with new customers in 2014. The decrease in consulting service revenues were also due to the Company's reduction in force of personnel providing consulting services.

Chemicals and other and Chemical and other cost of revenue

During the years ended December 31, 2014 and 2013, the most significant component of Chemicals and other revenues and costs of revenues were chemical sales related to emissions control technologies. Revenues decreased year over year due to decreased demand from one significant customer upgrading its facilities which decreased the amount of chemicals needed to comply with regulatory standards. Although sales decreased year over year, due to coal-fired power plant requirements to be in compliance with applicable regulations in 2014 and beyond, we believe this will lead to an increase in the market for these products in the future.

Additional information related to revenue concentrations and contributions by class and reportable segment can be found in Note 19 to the Company's Consolidated Financial Statements.

Other Operating Expenses

A summary of the remaining components of our operating expenses for the years ended December 31, 2014 and 2013 is as follows:

	Years Ended December 31,		Change	
(in thousands, except percentages)	2014	2013	($)	(%)
Operating expenses:				
Payroll and benefits	$20,767	$16,228	$4,539	28 %
Rent and occupancy	2,468	2,128	340	16 %
Legal and professional fees	14,430	4,534	9,896	218 %
General and administrative	6,066	4,101	1,965	48 %
Research and development, net	1,521	3,237	(1,716)	(53)%
Depreciation and amortization	1,865	1,648	217	13 %
	$47,117	$31,876	$15,241	48 %

Payroll and benefits

Payroll and benefits expenses increased in 2014 compared to 2013 due to an increase in executive and overall and executive head count, as well as restructuring expenses, including the modification and acceleration of restricted stock awards during 2014 in connection with the departure of certain executive officers and management's alignment of the business with strategic objectives. Restructuring expenses recorded during 2014 were $3.5 million compared to $0.1 million in 2013, of which $1.0 million was due to the accelerated vesting of modified equity-based compensation awards for certain terminated employees. Stock based compensation expense, excluding the impact of accelerated vesting of awards, also increased by $1.4 million in 2014 compared to 2013. These increases were offset by a $1.4 million decrease related to incentive compensation in 2014 compared to 2013. We expect payroll and benefits in 2015 to remain consistent with expenses in 2014 due to the restructuring charges we will record in 2015 in connection with the reduction in force, departure of certain executive officers and management's alignment of the business with strategic objectives.

Rent and occupancy

Rent and occupancy expenses increased in 2014 compared to 2013 primarily due to the Company leasing an additional 19,000 square feet of office and manufacturing space related to our BCSI operations.

Legal and professional fees

Legal and professional fees expenses increased by $6.1 million in 2014 compared to 2013 as a result of the significant professional resources deployed to address the Re-audit and Restatement of our consolidated financial statements, including the ongoing SEC Inquiry. Other increases in expenses associated with professional fees were due to a $0.9 million increase in the residual payment agreement with a former consultant who was involved in the development and deployment of RC technologies and $1.6 million of accrued expense related to the termination of the consulting agreement with the former owner

of the DSI equipment assets acquired by BCSI ("DSI Business Owner") as described in Note 9 of the Consolidated Financial Statements. The remaining increase was due to legal and professional fees associated with the realignment of our business with strategic objectives and expenses incurred in the normal course of business. We expect the legal and professional fees in 2015 to increase compared with expenses in 2014 as we continue to work on the Re-audit and Restatement of our consolidated financial statements, as well as the ongoing SEC Inquiry. Additionally, expenses related to the former RC consultant terminated in 2015. Finally, in February 2016, the Company entered into an agreement with the DSI Business Owner to settle the remaining amounts owed as of the date of the agreement of approximately $1.1 million for $0.3 million.

General and administrative

General and administrative expenses increased in 2014 compared to 2013 by $2.0 million primarily due to a $0.6 million increase in executive and other personnel talent acquisition costs, $0.4 million related to administrative travel expenses and a $0.5 million allowance against the entire principal balance of a note receivable, described in Note 12, as of December 31, 2014. Additionally, we recognized impairment charges on BCSI property and equipment during the years ended December 31, 2014 and 2013 of $0.4 million and $0.1 million, respectively, as projected future cash flows from operations related to the property and equipment did not support the carrying value recorded by the Company. During 2013, we also impaired the entire goodwill balance related to the 2012 BCSI acquisition, resulting in $0.2 million impairment charge. As announced in the third quarter of 2015, we closed the fabrication facility in McKeesport, Pennsylvania at the end of 2015. Future impairments or disposals of assets may impact our results of operations. We expect the general and administrative expenses in 2015 to remain consistent with expenses in 2014. During 2015 the Company also recorded an allowance against the additional principal balance of the note receivable, discussed above, disbursed in March 2015.

Research and development, net

Research and development expense decreased in 2014 compared to 2013 due to a decrease in personnel allocated to R&D and an overall decrease in R&D activities. We recorded gross R&D expenses of $3.6 million and $13.1 million in 2014 and 2013, respectively, offset by reimbursements received from the DOE and industry cost share partners of $2.0 million and $9.8 million, respectively. Expenses during 2013 were most significantly driven by a CO_2 research project for which the most material spend related to the construction of equipment which occurred during 2013. The Company's expenses related to this project during 2014 did not require significant amounts related to construction of equipment for the research.

Depreciation and amortization

Depreciation and amortization expense increased in 2014 compared to 2013 due to asset additions.

Other Income (Expense), net

A summary of the components of our other income (expenses), net for the years ended December 31, 2014 and 2013 is as follows:

	Years Ended December 31,		Change	
(Amounts in thousands, except percentages)	2014	2013	($)	(%)
Other income (expenses):				
Earnings from equity method investments	$42,712	$15,502	$27,210	176 %
Royalties, related party	6,410	2,505	3,905	156 %
Interest income	74	109	(35)	(32)%
Interest expense	(5,725)	(1,338)	(4,387)	328 %
Other	26	(44)	70	(159)%
Total other income (expense), net	$43,497	$16,734	$26,763	160 %

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Earnings in equity method investments

The following table presents the equity method earnings, by investee, recognized by the Company:

(in thousands)	Year ended December 31, 2014	2013	Change ($)	(%)
Earnings from CCS	$43,584	$13,813	$29,771	216 %
Earnings from CCSS	3,625	1,689	1,936	115 %
Loss from RCM6	(4,497)	—	(4,497)	*
Earnings from equity method investments	$42,712	$15,502	$27,210	176 %

* Calculation not meaningful

Earnings from equity method investments increased in 2014 compared to 2013 due to the operations of the Company's equity method investees and increases in cash distributions in excess of our investment balance from CCS. The weighted-average number of invested RC facilities, based upon the number of months each facility was invested during the respective years, increased year over year. The number of invested RC facilities that were generating rental income as of December 31, 2014 and 2013, were 12 and eight, respectively. The weighted-average number of retained RC facilities, based upon the number of months each facility was retained during the respective years, increased year over year. The number of retained RC facilities that were generating PTCs and other tax benefits as of December 31, 2014 and 2013, were five and four, respectively.

We recognized $43.6 million and $13.8 million of equity income from CCS for the years ended December 2014 and 2013, compared to our proportionate share of CCS' net income of $26.6 million and $8.9 million, respectively. The difference between our proportionate share of CCS's net income (loss) and our earnings from its CCS equity method investment as reported on our Consolidated Statements of Operations relates to the Company receiving distributions in excess of the carrying value of the investment, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. When CCS subsequently reports income, we will recognize income only to the extent of cash distributions until such time as the cumulative amount of earnings equals distributions; thereafter, the Company would continue to recognize its proportionate share of net income (loss). The following table shows the Company's investment balance, equity earnings, cash distributions received and cash distributions in excess of the investment balance for the years ended December 31, 2014 and 2013 (in thousands).

Description	Date(s)	Investment balance	ADES equity earnings (loss)	Cash distributions	Memo Account: Cash distributions and equity loss in (excess) of investment balance
Total investment balance, equity earnings (loss) and cash distributions	12/31/2012	$—	$53	$53	$(8,003)
ADES equity income from CCS	2013 activity	8,910	8,910	—	—
Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2013 activity	(8,003)	(8,003)	—	8,003
Current year cash distributions from CCS	2013 activity	(13,813)	—	13,813	—
Adjustment for current year cash distributions in excess of investment balance	2013 activity	12,906	12,906	—	(12,906)
Total investment balance, equity earnings (loss) and cash distributions	12/31/2013	—	13,813	13,813	(12,906)
ADES equity income from CCS	2014 activity	26,613	26,613	—	—

Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2014 activity	(12,906)	(12,906)	—	12,906
Current year cash distributions from CCS	2014 activity	(43,584)	—	43,584	—
Adjustment for current year cash distributions in excess of investment balance	2014 activity	29,877	29,877	—	(29,877)
Total investment balance, equity earnings and cash distributions	12/31/2014	$—	$43,584	$43,584	$(29,877)

As a result of earnings and cash flows from invested RC facilities, CCS distributed $43.6 million in cash that resulted in equity method earnings during 2014, compared to distributions and earnings of $13.8 million during 2013. As described in Note 4 of the CCS Consolidated Financial Statements, included within Item 15 of this Form 10-K, our future earnings and distributions

from CCS are expected to be negatively impacted due to modifications to leases that have occurred subsequent to December 31, 2014.

Equity earnings from our interest in CCSS increased by $1.9 million in 2014 as compared to 2013, primarily due to an increase in the number of RC facilities being operated by CCSS. The weighted-average number of RC facilities for which CCSS had operating and maintenance agreements in place, based upon the number of months each facility was operated during the respective years, increased year over year. As of December 31, 2014 and 2013, CCSS had operating and maintenance agreements with 17 and 12 RC facilities, respectively. CCSS derives earnings both from fixed-fee arrangements as well as fees that are tied to actual RC production, depending upon the specific RC facility operating and maintenance agreement.

During February 2014, we purchased a membership interest in RCM6 and recognized equity method losses resulting from the operation of the RC facility owned by RCM6, which generated tax credits and tax benefits available to the Company.

Although all of our deferred tax assets have a full valuation allowance recorded against them as of December 31, 2014 and 2013, we earned the following tax credits which may be available for future benefit related to the operation of retained RC facilities:

	Years Ended December 31,	
(in thousands)	2014	2013
Section 45 tax credits earned	$25,817	$15,366

As of September 30, 2015, we had earned additional tax credits during 2015 that may be available for future benefit related to the operation of retained RC facilities of approximately $29 million. We expect the number of earned Section 45 tax credits to increase as operations occur in 2015 and beyond.

As discussed in Item 1, CCS operates and leases or sells facilities used in the production of refined coal. All dispositions of such facilities are treated as sales for federal income tax purposes at CCS. The resulting gain from these sales is reported by CCS pursuant to the installment method under IRC Section 453. As of September 30, 2015, ADA’s allocable share of the gross deferred gain from CCS to be recognized in future years is approximately $350 million.

Due to the operation of retained RC facilities, CCS has generated PTCs under IRC Section 45 and IRC Section 38. These Section 45 and Section 38 tax credits qualify as General Business Credits ("GBC"). These GBC's are allocated to the owners of CCS, including the Company, who may benefit to the extent that the GBC's are realized from the operation of retained RC facilities. As of September 30, 2015, we had approximately $85 million in GBC carryforward and $37 million of federal net operating loss ("NOL") carryforwards, all of which had a valuation allowance recorded against them. Unused NOL's and GBC's may be carried forward 20 years from the tax year in which they are generated.

In the hypothetical event of an ownership change, as defined by IRC Section 382, utilization of the NOL's and tax credits generated prior to the change would be subject to an annual limitation imposed by IRC Section 382 for NOL's and Section 383 for tax credits. The results of a recent analysis indicated that we had not experienced an ownership change as of December 31, 2014. Such analysis has not been updated through September 30, 2015. Therefore, it is possible that we experienced an ownership change between January 1, 2015 and September 30, 2015, thus subjecting our NOL and GBC carryforwards to limitation. Should a limitation exist, however, we would likely be in a position to substantially increase the limitation by virtue of the deferred installment sale gain at CCS.

Specifically, IRC Section 382 provides that a corporation with a net unrealized built-in gain ("NUBIG") immediately before an ownership change may increase its limitation by the amount of recognized built-in gain ("RBIG") arising

from the sale of a built-in gain asset during a recognition period, which is generally the five year period immediately following an ownership change. Built-in gain reported on the installment sale method that is attributable to assets sold by the corporation before or during the recognition period may increase the corporation's limitation during and after the recognition period. Therefore, it is likely that any IRC Section 382 limitation imposed at ADES upon an ownership change may be increased by our share of RBIG from CCS's installment sale gain attributable to RC facilities sold before or during the period in which the change in ownership occurred.

There are numerous assumptions that must be considered in calculating the RBIG at CCS and the increase to our IRC Section 382 limitation. Assuming the following, the Company may be able to increase the total limitation by approximately $350 million over the duration of the installment sale.

- The CCS RBIG is a result of the sale of RC facilities by CCS and its election to utilize installment sale for tax purposes;
- Investors in RC facilities will not terminate existing contracts as completion of installment sale transaction is necessary to realize RBIG;
- We have no net unrealized built-in loss to offset the NUBIG from CCS;
- Our RBIG is equal to the deferred gain allocated from CCS or, approximately $350 million;
- We will have a NUBIG immediately before a hypothetical ownership change such that the CCS RBIG is available to increase the IRC Section 382 limitation;
- We will continue our historic business operations for at least two years following a hypothetical ownership change; and
- A second ownership change does not occur.

The annual limitation will be increased by the amount of RBIG that is included in taxable income each year.

The Company expects that in 2015 equity method earnings will decrease substantially from 2014 as there have been minimal new invested RC facilities in 2015, and because CCS distributions have decreased as cash flows have been used by CCS to fund the operations of retained RC facilities as well as capital expenditures associated with installing RC facilities at coal-fired power plants.

Additional information related to equity method investments can be found in Note 8 to the Company's Consolidated Financial Statements.

Royalties, related party

As of December 31, 2014 and 2013, RC was produced at six and three RC facilities, respectively, using M-45™ and M-45-PC™ technologies, which CCS licenses from us. During the years ended December 31, 2014 and 2013, there was 12.4 million tons and 5.1 million tons of RC produced at those facilities, respectively. We expect an increase in royalties in 2015 compared to 2014 as a result of an increase in RC facilities and the tons of RC produced at those facilities.

Interest expense

Interest expense increased in 2014 compared to 2013 by $2.1 million due to the increase in RC facilities on which CCS recognized installment sales for tax purposes from five to 11. IRC section 453A requires taxpayers using the installment method to pay an interest charge on the portion of the tax liability that was deferred under the installment method. The following table shows the balance of the tax liability that has been deferred and the applicable interest rate to calculate 453A interest:

	As of December 31,	
(in thousands)	2014	2013
Tax liability deferred on installment sales	$120,129	$43,777
Interest rate	3.00 %	3.00 %

Additionally, interest expense increased by $2.2 million related to a note payable used to finance our purchase of RCM6 in February 2014.

We expect an increase in interest expense in 2015 compared to 2014 due to an increase in 453A interest, full year of payments related to the purchase of RCM6 and interest payments on the short-term loan.

Income tax expense

We did not recognize any federal income tax expense (benefit) during the years ended December 31, 2014 or 2013 as a result of recording full valuation allowances against all of our net deferred tax assets in all jurisdictions. However, we did recognize state income tax expense for the years ended December 31, 2014 and 2013 of $0.3 million and $0.5

million, respectively. See Note 17 in our Consolidated Financial Statements for additional information.

Year ended December 31, 2013 vs. Year ended December 31, 2012

Our consolidated results comprised the following:

	Years Ended December 31,		Change	
(in thousands, except per share data)	2013	2012 (Restated)	($)	(%)
Revenues:				
Equipment sales	$5,747	$7,584	$(1,837)	(24)%
Consulting services	6,790	8,017	(1,227)	(15)%
Chemicals and other	749	715	34	5%
Total revenues	13,286	16,316	(3,030)	(19)%
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	9,459	5,540	3,919	71%
Consulting services cost of revenue, exclusive of depreciation and amortization	3,827	5,125	(1,298)	(25)%
Chemical and other cost of revenue, exclusive of depreciation and amortization	382	414	(32)	(8)%
Payroll and benefits	16,228	11,463	4,765	42%
Rent and occupancy	2,128	1,592	536	34%
Legal and professional fees	4,534	2,717	1,817	67%
General and administrative	4,101	3,159	942	30%
Research and development, net	3,237	252	2,985	*
Depreciation and amortization	1,648	903	745	83%
Total operating expenses	45,544	31,165	14,379	46%
Operating loss	(32,258)	(14,849)	(17,409)	117%
Other income (expenses):				
Earnings from equity method investments	15,502	813	14,689	*
Royalties, related party	2,505	1,446	1,059	73%
Interest income	109	308	(199)	(65)%
Interest expense	(1,338)	(798)	(540)	68%
Other	(44)	(35)	(9)	26%
Total other income (expense), net	16,734	1,734	15,000	865%
Income (loss) before income tax expense	(15,524)	(13,115)	(2,409)	18%
Income tax expense	463	14	449	*
Net income (loss)	$(15,987)	$(13,129)	$(2,858)	22%
Earnings (loss) per common share:				
Basic	$(0.78)	$(0.65)	$(0.13)	20%
Diluted	$(0.78)	$(0.65)	$(0.13)	20%
Weighted-average number of common shares outstanding:				
Basic	20,103	19,829		
Diluted	20,103	19,829		

* Calculation not meaningful

Total Revenue
A summary of the components of our revenue and costs of revenue for the years ended December 31, 2013 and 2012 (Restated) is as follows:

	Years Ended December 31,		Change	
(in thousands except percentages)	2013	2012 (Restated)	($)	(%)
Revenues:				
Equipment sales	$5,747	$7,584	$(1,837)	(24)%
Consulting services	6,790	8,017	(1,227)	(15)%
Chemicals and other	749	715	34	5 %
Total revenues	13,286	16,316	(3,030)	(19)%
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	9,459	5,540	3,919	71 %
Consulting services cost of revenue, exclusive of depreciation and amortization	3,827	5,125	(1,298)	(25)%
Chemical and other cost of revenue, exclusive of depreciation and amortization	382	414	(32)	(8)%

Equipment sales and Equipment sales cost of revenue, exclusive of depreciation and amortization

During the years ended December 31, 2013 and 2012, we entered into 26 and 17 long term (6 months or longer) fixed price contracts to supply ACI systems with aggregate contract values including change orders of $39.3 million and $19.4 million, respectively. During the years ended December 31, 2013 and 2012, we completed two and 11 ACI systems, recognizing revenues of $3.2 million and $6.6 million and costs of revenue of $2.4 million and $4.6 million, respectively. The decrease in the completion of equipment contracts was a combination of the timing of entering into the contracts as well as the extended timing of completed contract revenue recognition. We did not record any loss provisions related to ACI contracts in 2013 or 2012.

During the years ended December 31, 2013 and 2012, we entered into 24 and 11 long term (6 months or longer) fixed price contracts to supply DSI systems and other material handling equipment with contract values including associated change orders of $46.9 million and $12.6 million, respectively. During the years ended December 31, 2013 and 2012, we completed seven and zero DSI systems and 6 and one other material handling equipment systems, recognizing revenues of $2.0 million and zero and costs of revenue of $6.8 million and $0.2 million, respectively. The increase in 2013 was partially due to 2013 being the first full year of BCSI operations. Due to potential cost overruns related to certain DSI projects, we expect that the future relationship between revenues and costs may be dissimilar from prior results. Certain of the DSI system long term fixed price contracts were expected to be completed with losses. As a result, cost of sales includes $4.9 million and $0.1 million in loss provisions in 2013 and 2012 respectively, related to DSI system contracts.

The remaining changes were due to other equipment projects.

Growth in the number of ACI and DSI system contracts from 2012 to 2013 was driven by coal-fired power plant utilities that needed to comply with MATS and MACT standards by 2015.

Consulting services and Consulting services cost of revenue

We provided consulting services related to emissions regulations. Revenues decreased year over year due to a decrease in average size of individual contracts, which will fluctuate due to customer mix and specific consulting engagements. This was partially offset by an increase in the number of consulting service engagements that we performed in connection with the issuance of, and related deadlines under, the final MATS rule as well as the full year impact of the BCSI operations.

Chemicals and other and Chemical and other cost of revenue

During the years ended December 31, 2013 and 2012, the most significant component of Chemicals and other revenues and costs of revenues were chemical sales related to emissions control technologies. Revenues increased year over year due to an

increase in the number of contracts, partially offset by a decrease in average contract revenue. Increases in sales were due to an increasing market for chemicals and other solutions related to coal-fired power plant utilities need to comply with regulations.

Additional information related to revenue concentrations and contributions by class and reportable segment can be found in Note 19 to our Consolidated Financial Statements.

Other Operating Expenses
A summary of the components of our other operating expenses, exclusive of costs of revenue, shown above, for the years ended December 31, 2013 and 2012 is as follows:

	Years Ended December 31,		Change		
(in thousands, except percentages)	2013	2012 (Restated)	($)	(%)	
Operating expenses:					
Payroll and benefits	$16,228	$11,463	$4,765	42	%
Rent and occupancy	2,128	1,592	536	34	%
Legal and professional fees	4,534	2,717	1,817	67	%
General and administrative	4,101	3,159	942	30	%
Research and development, net	3,237	252	2,985	*	
Depreciation and amortization	1,648	903	745	83	%
Total operating expenses	$31,876	$20,086	$11,790	59	%

* Calculation not meaningful

Payroll and benefits
Payroll and benefits expenses increased in 2013 compared to 2012 due to the full year impact of the BCSI acquisition, which occurred in August 2012, increased share-based compensation expense of $1.7 million resulting from restricted stock award modifications, $1.1 million due to the implementation of a new executive compensation plan and increased payroll and benefits due to headcount increases related to non-BCSI personnel of the Company to address the increased demand for equipment and consulting services.

Rent and occupancy
Rent and occupancy expenses increased in 2013 compared to 2012 due to the full year impact of the BCSI acquisition and for our new headquarters location, which lease was commenced in the first quarter of 2012.

Legal and professional fees
Legal and professional fees expenses increased in 2013 compared to 2012 due to an increase in expenses associated with a residual payment agreement with a former consultant who was involved in the development and deployment of RC technologies, resulting in an increase of $0.4 million, increased accounting and audit related fees and legal matters with the Department of Justice of $0.9 million and the full year impact of consulting services provided to the Company by the DSI Business Owner, which resulted in an increase of $0.5 million year over year, as described in Note 9 of the Consolidated Financial Statements. These increases were partially offset by expenses related to the restatement of our Consolidated Financial Statements, which occurred during 2012, related to deferred tax accounting and the reclassification of equity interests related to CCS.

General and administrative
General and administrative expenses increased in 2013 compared to 2012 due primarily to the full year impact of the BCSI acquisition, as well as to the incurrence of certain goodwill and property impairment charges, also related to the BCSI acquisition. No property and equipment or goodwill impairment charges were recorded during the year ended December 31, 2012.

Research and development, net

Research and development expense increased in 2013 compared to 2012 due to an increase in activities related to a DOE research project relating to CO_2 capture, which commenced a material spend in the first quarter of 2013. We recorded gross R&D expenses of $13.1 million and $3.1 million, offset by reimbursements received from the DOE and industry cost share partners of $9.8 million and $2.9 million, respectively.

Depreciation and amortization

Depreciation and amortization expense increased in 2013 compared to 2012 due to the partial year impact of the BCSI acquisition in 2012 as well as additional capitalized amounts increasing overall depreciation and amortization expense.

Other Income (Expense), net

A summary of the components of our other income (expense), net for the years ended December 31, 2013 and 2012 (Restated) is as follows:

	Years Ended December 31,		Change	
(in thousands, except percentages)	2013	2012 (Restated)	($)	(%)
Other income (expenses):				
Earnings from equity method investments	$15,502	$813	$14,689	*
Royalties, related party	2,505	1,446	1,059	73 %
Interest income	109	308	(199)	(65)%
Interest expense	(1,338)	(798)	(540)	68 %
Other	(44)	(35)	(9)	26 %
Total other income (expense), net	$16,734	$1,734	$15,000	865 %

* Calculation not meaningful

Earnings in equity method investments

The following table shows the equity method earnings, by investee, recognized by the Company:

	Year ended December 31,		Change	
(in thousands)	2013	2012 (Restated)	($)	(%)
Earnings from CCS	$13,813	$53	$13,760	*
Earnings from CCSS	1,689	760	929	122 %
Earnings from equity method investments	$15,502	$813	$14,689	*

* Calculation not meaningful

Earnings from equity method investments increased in 2013 compared to 2012 due to the operations of the Company's equity method investees and increases in cash distributions in excess of our investment balance from CCS. The weighted-average number of invested RC facilities, based upon the number of months each facility was invested during the respective years, increased year over year. The number of invested RC facilities that were generating rental income as of December 31, 2013 and 2012, was eight and four, respectively. The weighted-average number of retained RC facilities, based upon the number of months each facility was retained during the respective years, increased year over year. The number of retained RC facilities that were generating PTCs and other tax benefits as of December 31, 2013 and 2012, was four and four, respectively.

We recognized $13.8 million and $0.1 million of equity income from CCS for the years ended December 31, 2013 and 2012, compared to our proportionate share of CCS' net income (loss) of $8.9 million and $(3.8) million, respectively. The difference between our proportionate share of CCS's net income (loss) and our earnings from its CCS equity method investment as reported on our Consolidated Statements of Operations relates to the Company receiving distributions in excess of the carrying value of our investment, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. When CCS subsequently reports income, we will recognize income only to the extent of cash distributions until such time as the cumulative amount of earnings equals distributions; thereafter, the Company would continue to recognize its proportionate share of net income (loss). The following table shows our investment balance, equity earnings, cash distributions received and cash distributions in excess of our investment balance for the years ended December 31, 2013 and 2012 (in thousands):

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Description	Date(s)	Investment balance	ADES equity earnings (loss)	Cash distributions	Memo Account: Cash distributions and equity loss in (excess) of investment balance
Beginning balance	1/1/2012	$—	$—	$—	$(4,128)
ADES equity loss from CCS	2012 activity	(3,822)	(3,822)	—	—
Increase of equity loss in excess of investment balance (prior to cash distributions)	2012 activity	3,822	3,822	—	(3,822)
Current year cash distributions from CCS	2012 activity	(53)	—	53	—
Adjustment for current year cash distributions in excess of investment balance	2012 activity	53	53	—	(53)
Total investment balance, equity earnings (loss) and cash distributions	12/31/2012	—	53	53	(8,003)
ADES equity income from CCS	2013 activity	8,910	8,910	—	—
Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2013 activity	(8,003)	(8,003)	—	8,003
Current year cash distributions from CCS	2013 activity	(13,813)	—	13,813	—
Adjustment for current year cash distributions in excess of investment balance	2013 activity	12,906	12,906	—	(12,906)
Total investment balance, equity earnings (loss) and cash distributions	12/31/2013	$—	$13,813	$13,813	$(12,906)

As a result of earnings and cash flows from invested RC facilities, CCS distributed $13.8 million in cash during 2013 that resulted in equity method earnings compared to distributions and earnings of $0.1 million during 2012.

Equity earnings from our interest in CCSS increased in 2013 as compared to 2012, primarily due to an increase in the number of RC facilities being operated by CCSS. The weighted-average number of RC facilities for which CCSS had operating and maintenance agreements in place, based upon the number of months each facility was operated during the respective years, increased year over year. As of December 31, 2013 and 2012, CCSS had operating and maintenance agreements with 12 and eight RC facilities, respectively. CCSS derives earnings both on fixed-fee arrangements as well as those driven by RC production, depending upon the specific RC facility operating and maintenance agreement.

Although all of our deferred tax assets have full valuation allowances recorded against them, during the years ended December 31, 2013 and 2012, we earned the following tax credits which may be available for future benefit related to the operation of RC facilities that were not invested:

	Years Ended December 31,	
(in thousands)	2013	2012
Section 45 tax credits earned	$15,366	$16,392

Additional information related to equity method investments can be found in Note 8 to our Consolidated Financial Statements.

Royalties, related party

As of December 31, 2013 and 2012, RC was produced at three and two RC facilities, respectively, using M-45™ and M-45-PC™ technologies, which CCS licensed from us beginning in July 2012. During the years ended December 31, 2013 and 2012 (subsequent to July 2012), there was 5.1 million tons and 2.6 million tons of RC produced at those facilities, respectively. Production at the third facility in 2013 did not commence until the fourth quarter.

Interest expense

Interest expense increased in 2013 compared to 2012 by $0.5 million due to the increase in RC facilities on which CCS recognized installment sales for tax purposes from three to five as IRC section 453A requires taxpayers using the installment method to pay an interest charge on the portion of the tax liability that was deferred under the installment method. The following table shows the balance of the tax liability that has been deferred by us and the applicable interest rate to calculate 453A interest:

	As of December 31,	
(in thousands)	2013	2012
Tax liability deferred on installment sales	$43,777	$26,230
Interest rate	3.00 %	3.00 %

Income tax expense

We did not recognize any federal income tax expense (benefit) during the years ended December 31, 2013 or 2012 as a result of recording full valuation allowances against all of our net deferred tax assets. However, we did recognize state income tax expense for the years ended December 31, 2013 and 2012 of $0.5 million and zero, respectively. See Note 17 of our Consolidated Financial Statements for additional information.

Business Segments

As discussed in Item 1 and Note 18 of the Consolidated Financial Statements, we have four reportable segments: (1) RC; (2) EC - ETS; (3) EC - Manufacturing; and (4) R&D. The business segment measurements are computed in accordance with the principles listed below:

- The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except as described below.
- Segment revenue includes the Company's equity method earnings and losses from the Company's equity method investments. Segment revenue also includes the Company's royalty earnings from CCS.
- Segment operating income (loss) includes the Company's equity method earnings and losses from the Company's equity method investments and royalty earnings from CCS. However, segment operating income (loss) excludes Payroll and benefits, Rent and occupancy, Legal and professional fees, and General and administrative ("Corporate general and administrative expenses") as well as depreciation and amortization expense, unless otherwise specifically included as the Company does not allocate those amounts between segments.
- Segment revenue includes Research and Development reimbursements.
- Items not included in consolidated operating income are excluded from segment operating income except for 453A interest and RCM6 interest expense, which is directly attributable to our RC segment.

The principal products and services of our segments are:

1. RC - Our RC segment derives its earnings from equity method investments as well as royalty payment streams and other revenues related to enhanced combustion of and reduced emissions of both NO_X and mercury from coals. The Company's equity method investments related to the RC segment include CCS, CCSS and RCM6. Segment revenues includes the Company's equity method earnings and losses from the Company's equity method investments and royalty earnings from CCS. These earnings are included within the Earnings from equity method investments and Royalties, related party line items in the Consolidated Statements of Operations.
2. EC - ETS - Our EC - ETS segment includes revenues and related expenses from the sale of ACI equipment systems, consulting services and chemical and other sales related to the reduction of emissions in the coal-fired electric generation process. The fabrication of ACI systems is largely dependent upon third party manufacturers. These amounts are included within the respective revenue and cost of sales line items in the Consolidated Statements of Operations.
3. EC - Manufacturing - Our EC - Manufacturing segments includes revenues and related expenses from the sale of DSI equipment systems, consulting services and other sales related to the reduction of emissions in the electric utility industry. We fabricate DSI systems through our subsidiary BCSI. These amounts are included within the respective revenue and cost of sales line items in the Consolidated Statements of Operations.
4. R&D - Our R&D segment focuses on the research and development of technologies through internal funds, and contracts supported by the DOE and industry participants. The contracts with the DOE take the form of grants or cooperative agreements and are considered financial assistance awards. Segment revenues include the reimbursements received from the DOE and industry participants. These reimbursements are included as contra expense within the Research and development, net line item in the Consolidated Statements of Operations.

Management uses segment operating income (loss) to measure profitability and performance at the segment level. Management believes segment operating income (loss) provides investors with a useful measure of our operating performance and underlying trends of the businesses. Segment operating income (loss) may not be indicative of our overall consolidated performance and therefore, should be read in conjunction with our consolidated results of operations.

The following table presents our operating segment results for the years ended December 31, 2014, 2013 and 2012 (Restated):

	Years Ended December 31,			Change	
(in thousands)	2014	2013	2012 (Restated)	($)	($)
Revenues:					
Refined Coal:					
Earnings from equity method investments	$42,712	$15,502	$813	$27,210	$14,689
Consulting services	665	1,330	3,255	(665)	(1,925)
Royalties, related party	6,410	2,505	1,446	3,905	1,059
	49,787	19,337	5,514	30,450	13,823
Emissions Control - Engineering Technology and Services:					
Equipment sales	11,327	3,499	7,496	7,828	(3,997)
Consulting services	2,576	3,304	4,111	(728)	(807)
Chemical and other	391	749	715	(358)	34
	14,294	7,552	12,322	6,742	(4,770)
Emissions Control - Manufacturing:					
Equipment sales	717	2,248	88	(1,531)	2,160
Consulting services	1,247	2,156	651	(909)	1,505
Chemical and other	—	—	—	—	—
	1,964	4,404	739	(2,440)	3,665
Research and Development:	2,033	9,817	2,881	(7,784)	6,936
	2,033	9,817	2,881	(7,784)	6,936
Total segment reporting revenues	$68,078	$41,110	$21,456	$26,968	$19,654
Adjustments to reconcile to reported revenues:					
Refined Coal:					
Earnings from equity method investments	$(42,712)	$(15,502)	$(813)	(27,210)	(14,689)
Royalties, related party	(6,410)	(2,505)	(1,446)	(3,905)	(1,059)
	(49,122)	(18,007)	(2,259)	(31,115)	(15,748)
Research and Development:	(2,033)	(9,817)	(2,881)	7,784	(6,936)
Total reported revenues	16,923	13,286	16,316	3,637	(3,030)
Segment reporting operating income (loss)					
Refined Coal	$42,094	$16,227	$1,759	$25,867	$14,468
Emissions Control - Engineering Technology and Services	(3,073)	(2,580)	(70)	(493)	(2,510)
Emissions Control - Manufacturing	(7,635)	(8,378)	(1,337)	743	(7,041)
Research and Development	(2,640)	(3,536)	(497)	896	(3,039)
Total segment operating income (loss)	$28,746	$1,733	$(145)	$27,013	$1,878

A reconciliation of segment operating income (loss) to consolidated net income (loss) is included within Note 18 of the Consolidated Financial Statements.

RC

The following table details the segment revenues of the Company's respective equity method investments:

	Year ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Earnings from CCS	$43,584	$13,813	$53
Earnings from CCSS	3,625	1,689	760
Loss from RCM6	(4,497)	—	—
Earnings from equity method investments	$42,712	$15,502	$813

We recognized $43.6 million, $13.8 million and $0.1 million of equity income from CCS for the years ended December 2014, 2013 and 2012, respectively, compared to our proportionate share of CCS' net income (loss) of $26.6 million, $8.9 million and $(3.8) million, respectively. The difference between our proportionate share of CCS's net income (loss) and our earnings from CCS equity method investment as reported on our Consolidated Statements of Operations relates to the Company receiving distributions in excess of the carrying value of the investment, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. When CCS subsequently reports income, we will not record our share of such income until such a time when the cumulative amount of earnings equals the amount of distributions in excess of carrying value that was previously recognized in income.

Additional discussion of our equity method investments is included above within our consolidated results and in Note 8 of the Consolidated Financial Statements.

During the years ended December 31, 2014, 2013 and 2012, there was 12.4 million, 5.1 million and 2.6 million tons, respectively, of RC produced using M-45™ and M-45-PC™ technologies, which CCS licensed from us beginning in July 2012. These increases in tons produced were driven by increases in the number of RC facilities using the M-45™ and M-45-PC™ technologies. We expect an increase in royalties in 2015 as a result of an increase in RC facilities and the tons of RC produced at those facilities.

Consulting services previously provided to CCS and CCSS related to the installation of RC facilities has decreased as the material work related to those projects was significantly completed during 2012 and 2013. The Company does not expect that consulting services related to the RC segment will be material in the future.

Segment operating income (loss) increased during 2014 compared to 2013 due to the increase in revenues, offset by a $4.4 million increase in interest expense due to 453A interest and the Company's purchase of an interest in RCM6, as discussed within our consolidated results of operations.

Segment operating income (loss) increased during 2013 compared to 2012 due to the increase in revenues, offset by a $0.6 million increase in 453A interest expense, as discussed within our consolidated results of operations.

EC - ETS

During the years ended December 31, 2014 and 2013, we completed 15 and two ACI systems, recognizing revenues of $11.1 million and $3.2 million and costs of revenue of $8.1 million and $2.4 million, respectively. We did not recognize any loss provisions related to contracts in 2014 and 2013 related to ACI systems.

During the years ended December 31, 2013 and 2012, we completed two and 11 ACI systems, recognizing revenues of $3.2 million and $6.6 million and costs of revenue of $2.4 million and $4.6 million, respectively. The decrease in the completion of equipment contracts was a combination of the timing of entering into the contracts as well as the extended timing of completed contract revenue recognition. We did not record any loss provisions related to ACI contracts in 2013 or 2012.

Consulting service revenues decreased during 2014 compared to 2013 due to a decrease in average contract revenue, partially offset by an increase in the number of consulting service engagements.

Consulting service revenues decreased during 2013 compared to 2012 due to a decrease in average size of individual contracts based upon types consulting services provided.

During the years ended December 31, 2014 and 2013, the most significant component of Chemicals and other revenues and costs of revenues were chemical sales related to emissions control technologies. Revenues decreased during 2014 compared to 2013 due to decreased demand from a customer upgrading its facilities which decreased the amount of chemicals needed to

comply with regulatory standards. Although sales decreased year over year, due to coal-fired power plant requirements to be in compliance with applicable regulations in 2014 and beyond, we believe this will lead to an increase in the market for these products in the future.

During the years ended December 31, 2013 and 2012, Chemicals and other revenues increased year over year due to an increase in the number of contracts, partially offset by a decrease in average contract revenue. Increases in sales were due to an increasing market for chemicals and other solutions related to coal-fired power plant utilities need to comply with regulations.

Despite the increase in revenue during 2014 compared to 2013, segment operating income (loss) decreased due to an increase of $4.0 million in costs of sales and a $2.3 million increase in payroll and benefits due to increased headcount and restructuring charges.

Due to decreases in revenues and increases in costs of revenue as percentage of revenue, segment operating income (loss) decreased during 2013 compared to 2012. Increases in costs of revenue as a percentage of revenue are significantly impacted by the equipment contracts recognized in revenue and may fluctuate from period to period depending upon the mix of contracts.

EC - Manufacturing
During the years ended December 31, 2014 and 2013, we completed two and seven DSI systems and five and six other material handling equipment systems, recognizing revenues of $0.6 million and $2.0 million and costs of revenue of $0.8 million and $6.8 million, respectively. Due to potential cost overruns related to certain DSI projects, the Company expects that the future relationship between revenues and costs may be dissimilar from prior results. Cost of sales were impacted year over year due to $0.4 million and $4.9 million in loss provisions related to contracts recognized in 2014 and 2013, respectively, related to DSI contracts.

During the years ended December 31, 2013 and 2012, we completed seven and zero DSI systems and six and one other material handling equipment systems, recognizing revenues of $2.0 million and zero and costs of revenue of $6.8 million and $0.2 million, respectively. The increase in 2013 was partially due to 2013 being the first full year of BCSI operations. Certain of the BCSI long term fixed price contracts were expected to be completed with losses. As a result, cost of sales includes $4.9 million and $0.1 million in loss provisions in 2013 and 2012 respectively, related to DSI contracts.

Consulting service revenues decreased during 2014 compared to 2013 due to a decrease in the number of consulting service engagements and hours of consulting services provided for those earned on an hourly basis, partially offset by an increase in the average contract revenue. The decrease in consulting service revenues earned on an hourly basis was due to the reduction in hours needed from Customer D in Note 19, which made up 88% and 68% of the consulting service segment revenues in 2014 and 2013, respectively. The consulting services related to the temporary operation of a DSI system until full time personnel were in place and these services concluded during 2014.

Consulting service revenues increased during 2013 compared to 2012 due to 2013 being the first full year of BCSI operations and an increase in number of consulting service engagements. The increase in consulting service revenues was most significantly impacted by the increase in revenues from Customer D in Note 19, which made up 68% and 54% of the consulting service segment revenues in 2014 and 2013, respectively.

Segment operating income (loss) decreased during 2014 compared to 2013 even though revenues decreased due to a decrease of $6.2 million in cost of sales, $4.4 million of which related to decreases in loss provisions. These decreases were offset by increases of $2.9 million in other operating expenses. Payroll and benefits increased by $0.7 million due to increased headcount and legal and professional fees increased by $1.9 million, most significantly due to $1.6 million of accrued expense related to the termination of the consulting agreement with the DSI Business Owner as

described in Note 9 of the Consolidated Financial Statements.

Segment operating income (loss) decreased during 2013 compared to 2012 despite increases in revenue due to increases in loss provisions on equipment contracts and a full year of operating expenses as this segment only began operations in the third quarter of 2012 due to the BCSI acquisition.

R&D

Research and development expense decreased in 2014 compared to 2013 due to a decrease in personnel allocated to R&D and an overall decrease in R&D activities. We recorded gross R&D expenses of $3.6 million and $13.1 million in 2014 and 2013, respectively, offset by reimbursements received from the DOE and industry cost share partners of $2.0 million and $9.8 million, respectively. Expenses during 2013 were most significantly driven by a CO_2 research project for which the most

material spend related to the construction of equipment which occurred during 2013. The Company's expenses related to this project during 2014 did not require significant amounts related to construction of equipment for the research.

Research and development expense increased in 2013 compared to 2012 due to an increase in activities related to a DOE research project relating to CO_2 capture, which commenced a material spend in the first quarter of 2013. We recorded gross R&D expenses of $13.1 million and $3.1 million, offset by reimbursements received from the DOE and industry cost share partners of $9.8 million and $2.9 million, respectively.

Segment operating income (loss) decreased during 2014 compared to 2013 due to a CO_2 research project for which the most material spend related to the construction of equipment which occurred during 2013.

Segment operating income (loss) increased during 2013 compared to 2012 due to a CO_2 research project for which the most material spend related to the construction of equipment which occurred during 2013.

Other matters
During the fourth quarter of 2015 the Company realigned its operating segments into two reportable segments: (1) Refined Coal ("RC"); and (2) Emissions Control - Engineering and Technology Services ("EC - ETS"). Beginning with the Company's 2015 Annual Report on Form 10-K, the Company will retroactively adjust all segment related disclosures.

Liquidity and Capital Resources

Overview of Factors Affecting Our Liquidity

Our principal sources of liquidity include:

- cash on hand;
- cash flows from operations
- distributions from CCS and CCSS;
- royalty payments from CCS;
- proceeds from private equity placements; and
- proceeds from the securing of debt facilities, such as the $15 million term loan obtained in October 2015, as described below.

In November 2013, we received net proceeds from a common stock offering of $29.0 million for general operating needs. In addition, in September 2013, we entered into a 2013 Loan and Security Agreement with a bank for an aggregate principal amount of $10.0 million that is secured by certain amounts due to us from certain CCS RC leases (the "Line of Credit"). As amended, the Line of Credit is available until May 31, 2016. Since June 2014, we have been unable to borrow from our Line of Credit as a result of not being in compliance with certain covenants related to its loan agreement. No borrowings were outstanding as of December 31, 2014 or 2013. Prior to June 2014, the Line of Credit was used primarily to provide collateral support for certain Letters of Credit that had been issued to customers related to certain contractual performance and payment guarantees, typically provided in lieu of surety bonds. Upon notification of such covenant non-compliance, we were required to secure such letters of credit with cash collateral. In addition, we are required to provide cash collateral to other financial institutions that have issued letters of credit providing security for continuing royalty indemnification obligations related to the settlement of certain litigation. The collateral amounts are disclosed on our balance sheets as Restricted cash, Restricted cash, long-term and Investment securities, restricted, long-term. As of December 31, 2014 and 2013, these collateral amounts totaled $11.6 million and $8.4 million, respectively.

The Line of Credit has been amended six times (December 2, 2013, April 3, 2014, September 20, 2014, December 15, 2014, May 29, 2015 and September 30, 2015), most notably to extend the maturity date. The lender has also provided seven waivers relating to various transactions and obligations to provide financial information to the lender. As amended, the Line of Credit is available until May 31, 2016. No amounts were drawn on the Line of Credit during the years ended December 31, 2014 and 2013, respectively.

Our primary uses of liquidity, in addition to the restricted cash assets described above, are to fund operating expenses, royalty indemnification payments, capital expenditures, investments in and advances to non-controlled entities, interest expense, most significantly related to 453A interest, RCM6 capital calls, research and development costs as well as the funding of substantial and continuing costs and expenses related to the re-audits of prior year financial statements, including litigation and other expenses related thereto. During 2015, we used cash resources to acquire certain assets of InSyst Ltd. and ClearView Monitoring Solutions Ltd. (collectively "ADA Analytics Israel, LLC"). In addition, during 2015, we used cash resources to fund costs associated with the reduction in force, the departure of certain executive officers and certain other expenses associated with management's alignment of the business with strategic objectives.

The following table presents our unaudited approximate cash and cash equivalents and restricted cash balances, as of the end of the quarterly periods of 2015 (in thousands):

	As of			
	March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015
Cash and cash equivalents	$11,000	$9,000	$ 8,000	$ 9,000
Restricted cash (current and long-term)	$13,000	$14,000	$ 12,000	$ 12,000

On October 22, 2015, we entered into a $15.0 million short-term loan agreement with Franklin Mutual Quest Fund and MFP Investors LLC (the "Lenders"), and Wilmington Trust, National Association, as the administrative agent and collateral agent (the “Credit Agreement”). The Credit Agreement matures on April 22, 2016, subject to a three-month extension at the Company's option to the extent certain conditions are met. The loan under the Credit Agreement bears interest at a stated annual rate equal to 10.5% and is subject to various prepayment and other premiums if certain

events occur, including upon certain asset sales or receipts of certain types of cash proceeds outside the ordinary course of business, a change in control or an event of default. Upon closing, we received net proceeds of $13.5 million and recorded debt discounts and debt issuance costs of $1.5 million. The debt discounts and debt issuance costs will be amortized to interest expense using the effective interest method over the life of the Credit Agreement. The net proceeds received are being used to fund our working capital needs and for general operating purposes. The Credit Agreement may become due prior to maturity based on certain customary events

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requiring mandatory prepayment, including upon certain asset sales or receipts of certain types of cash proceeds outside the ordinary course of business, upon a change of control, and upon a default.

In February 2016, the Company entered into an agreement with the DSI Business Owner to settle the remaining amounts owed as of the date of the agreement of approximately $1.1 million for $0.3 million.

Our ability to generate sufficient cash flow required to meet ongoing operational needs and to meet our obligations, including the repayment of the loan under the Credit Agreement, depends upon several factors, including executing on our contracts and initiatives, discussed above, receiving royalty payments from CCS and distributions from CCS and CCSS, and our ability to maintain a significant share of the market and increase operational efficiencies for emissions control equipment, chemicals and services. Distributions from CCS will likely be dependent upon the securing of additional tax equity investors for those CCS facilities that are currently not operating, or operating as retained RC facilities. If we are unable to generate sufficient cash flow, we may be unable to meet our operational needs including repayment of our loan when due. In that case, we will seek to refinance the loan or obtain alternative financing. If we are unable to do so, our lenders would be entitled to proceed against the collateral securing the indebtedness, which includes substantially all of our assets, to the extent permitted by the Credit Agreement and applicable law.

Sources and Uses of Cash

Year ended December 31, 2014 vs. Year ended December 31, 2013

Cash and cash equivalents decreased from $37.9 million as of December 31, 2013 to $25.2 million as of December 31, 2014, a decrease of $12.7 million.

Notable areas that contributed to this decrease include the increases in expenses and cash spend for payroll and benefits, legal and professional fees and general and administrative costs, as well as the following operating activities: i) an increase in accounts receivables ($4.5 million); ii) payment of settlement royalties ($4.6 million); iii) an increase in prepaid expenses and other assets ($2.2 million); iv) a decrease in the Advance deposit, related party of ($2.1 million); and, v) net payments related to extended equipment contracts of $1.0 million.

Equity income from equity method investments ($42.7 million) was also offset by actual cash distributions, included within operating and investing cash flows, from our equity method investees of $46.1 million.

In addition, the following investing activities also contributed to the decrease in cash balances: i) the transfer of unrestricted cash to restricted cash to provide collateral for certain letters of credit ($1.2 million); and ii) acquisitions of property and equipment, cost method investments and equity method investees ($11.0 million).

These cash outflows were offset in part by the following notable cash inflows: i) Distributions from equity method investees ($46.1 million, inclusive of both return on and return of investment distributions); and ii) non-cash charges included in the Consolidated Statements of Operations ($10.2 million).

Cash flow from operating activities

	Years Ended December 31,		
(in thousands)	2014	2013	Change
Net income (loss)	$1,387	$(15,987)	$17,374
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	1,865	1,648	217
Accretion of asset retirement obligation	58	55	3
Non-cash research and development expenses	—	1,075	(1,075)
Impairment of property and equipment and goodwill	355	277	78
Provision for bad debt expense and note receivable	500	10	490
Interest costs added to principal balance of notes payable	1,124	—	1,124
Consulting expense financed through note payable	1,600	—	1,600
Share-based compensation expense	4,712	2,312	2,400
Earnings from equity method investments	(42,712)	(15,502)	(27,210)
Other non-cash items, net	80	56	24
Changes in operating assets and liabilities, net of effects of acquired businesses:			
Receivables	(3,651)	(6,711)	3,060
Related party receivables	(809)	1,224	(2,033)
Prepaid expenses and other assets	(1,877)	361	(2,238)
Costs incurred on uncompleted contracts	(56,606)	(19,313)	(37,293)
Restricted cash	(2,387)	—	(2,387)
Restricted cash, long-term	—	(4,860)	4,860
Other long-term assets	(47)	(49)	2
Accounts payable	2,328	2,225	103
Accrued payroll and related liabilities	686	1,655	(969)
Other current liabilities	(672)	5,918	(6,590)
Billings on uncompleted contracts	55,621	33,220	22,401
Advance deposit, related party	(2,135)	7,166	(9,301)
Other long-term liabilities	144	268	(124)
Settlement and royalty indemnification obligation	(4,622)	(5,245)	623
Distributions from equity method investees, return on investment	2,509	5	2,504
Net cash used in operating activities	$(42,549)	$(10,192)	$(32,357)

Cash flows used in operating activities reflect the timing of our working capital requirements, in addition to other items discussed herein.

Our cash spend for legal and professional fees increased by approximately $6.1 million from that of the comparable prior year period due to our efforts related to the Re-audit and Restatement process, SEC Inquiry and consulting fees paid to a former consultant for RC technology. We expect the legal and professional spend in 2015 to increase significantly compared with expenses in 2014 as we continue to work on the Re-audit and Restatement of our consolidated financial statements, as well as the ongoing SEC Inquiry for an entire year.

Deferred revenue and project costs resulted in a change in the use of operating cash flows on a net basis of $15.5 million due to production of ACI and DSI equipment systems. However, due to the completed contract revenue recognition method, these billings and related costs have not yet been recognized within revenues and cost of sales, respectively. Cash flows related to the production of ACI and DSI equipment systems are expected to be similar to those experienced in 2014 as customers work to become compliant with regulatory emissions standards.

During 2013, we received $8.0 million of advance deposits related to expected future royalties from CCS that are offset against of portion of future royalty earnings. Royalty earnings, net of the advanced payment offset positively impacted operating cash flows by $7.2 million in 2013. We did not receive additional advanced deposits during 2014. As future royalties are generated,

we will receive less cash than royalties earned as a portion of the future earnings will be offset against prior period prepayments.

Settlement and royalty indemnification obligation payments relate to the payment of litigation matters, as discussed in Note 15 of the Consolidated Financial Statements. These payments will continue through the third quarter of 2018 and will increase or decrease based upon the sale of activated carbon by a third party.

Our operating cash flow may also be significantly impacted by distributions from our equity investees which are classified as either a return on investment within operating cash flows or a return in excess of cumulative earnings within investing cash flows. During 2014, we received $29.8 million more in total cash distributions from equity method investees than we did in 2013.

Cash flow from investing activities

	Years Ended December 31,		
(in thousands)	2014	2013	Change
Purchase of investment securities	$(105)	$(105)	$—
Maturity of investment securities	210	105	105
Purchase of investment securities, restricted	(3)	(3,427)	3,424
Maturity of investment securities, restricted	406	5,227	(4,821)
Increase in restricted cash	(1,243)	(2,807)	1,564
Acquisition of property and equipment	(1,563)	(2,135)	572
Proceeds from sale of property and equipment	26	1	25
Principal payments received on notes receivable, related party	—	500	(500)
Advance on note receivable	(500)	—	(500)
Purchase of cost method investment	(2,776)	—	(2,776)
Purchase, contributions and advance on note receivable to equity method investees	(6,631)	—	(6,631)
Distributions from equity method investees in excess of cumulative earnings	43,584	13,813	29,771
Net cash provided by investing activities	$31,405	$11,172	$20,233

Purchase and maturity of investments in securities, restricted and Increase in restricted cash

We are required to provide collateral for certain letters of credit for ACI and DSI equipment and other projects, as well as for future payments related to royalty indemnification obligation payments as discussed in Note 15 of the our Consolidated Financial Statements. Investment securities and cash are pledged as security for letters of credit in the same amount as the investments. The restricted investments and cash increased most significantly due to the increase in ACI and DSI projects.

Principal payments on note receivable, related party

During 2013, we collected the $0.5 million outstanding principal balance related to a note receivable from CCSS.

Acquisition of property and equipment and Advance on note receivable

Acquisitions of property and equipment were $1.6 million in 2014 and are estimated to decrease in 2015 and are expected to be funded by cash flows from equity investee distributions. However, if cash flows from investee distributions are insufficient, we may elect to decrease our discretionary capital expenditures. During 2014 and 2013, the Company used investing cash flows for the purchase of equipment and leasehold improvements.

In December 2014, we loaned $0.5 million to an independent third party to provide financing for the pursuit of emissions technology projects, bearing annual interest of 8%. Interest and principal were payable at maturity of the agreement in June 2015. In March 2015, we loaned an additional $0.5 million to the third party, continuing to bear annual interest at 8%. All interest and principal payments were then deferred until March 2018. We recorded an allowance against the entire principal balance of the note receivable outstanding, reversed accrued interest and put the note on non-accrual status as of December 31, 2014 and March 31, 2015, as described in Note 12.

Equity method and cost method investments

On February 10, 2014, we purchased a 24.95% membership interest in RCM6, a single RC facility that produces RC that qualifies for Section 45 tax credits. Total consideration given included a cash payment of $2.4 million and the execution of a $13.3 million note payable. In addition, we are subject to quarterly capital calls and variable payments

based upon differences

in originally forecasted RC production as of the purchase date and actual quarterly production. Due to the difference of the stated rate and the effective rate, the note payable is carried at a discount of $10.1 million as of December 31, 2014. During the year ended December 31, 2014 we also funded capital calls and made variable payments of $4.2 million.

As discussed within the Results of Operations and the operating cash flow activities above, our investing cash flow may also be significantly impacted by the classification of cash distributions from equity method investees as either a return on investment within operating cash flows or a return in excess of cumulative earnings within investing cash flows. There was an increase in distributions from equity method investments within the investing section due to an increase in year over year distributions in excess of cumulative earnings from CCS. During 2014 and 2013, all cash distributions from CCS were included within investing cash flows.

In November 2014, we acquired an 8% interest in Highview Enterprises Limited ("Highview"), a London England based developmental stage Company specializing in power storage, for $2.8 million.

Cash flow from financing activities

	Years Ended December 31,		
(in thousands)	2014	2013	Change
Gross proceeds from issuance of common stock	$—	$31,050	$(31,050)
Stock issuance and registration costs	—	(2,135)	2,135
Proceeds received upon exercise of stock options	243	354	(111)
Repurchase of shares to satisfy minimum tax withholdings	(1,500)	—	(1,500)
Principal payments on note payable	(238)	—	(238)
Line of credit amendment fees	(70)	(100)	30
Net cash provided by (used in) financing activities	$(1,565)	$29,169	$(30,734)

Equity offering

During November 2013, we completed an equity offering from which we received net proceeds of approximately $29.0 million. The offering was undertaken to raise funds for general working capital and corporate purposes, as well as to provide funds for ACI and DSI equipment projects.

Equity award activity

During 2014 we received proceeds from the exercise of options. During 2014, these proceeds were offset by the repurchase of shares from employees upon the exercise of the option awards to cover the minimum statutory tax withholdings.

Significant non-cash transactions

	Years Ended December 31,		
(in thousands)	2014	2013	Change
Restricted stock award reclassification (equity to liability)	$501	$991	$(490)
Issuance of common stock to settle liabilities	127	684	(557)
Acquisition of equity method investment through note payable	13,301	—	13,301
Acquisition of technology license through long-term payable	1,525	—	1,525

During the years ended December 31, 2014 and 2013, we reclassified certain restricted stock awards from equity to liabilities.

During the years ended December 31, 2014 and 2013, we contributed $0.1 million and $0.7 million, respectively of common stock to the Company's 401(k) plan to settle the Company's matching contributions related to employee contributions.

In connection with the purchase of RCM6 in February 2014, we financed a portion of the transaction through a note payable with CCS. The initial note payable of $13.3 million, payable over seven years, was a non-cash transaction. See Note 10 of our Consolidated Financial Statements within Item 8 of this Form 10-K for additional details related to this transaction.

In November 2014, in addition to acquiring an 8% interest in Highview, we also licensed technology from Highview, in a long term, exclusive arrangement that requires us to make payments over the course of 10 years totaling $3.4 million using the exchange rate in effect as of December 31, 2014. The technology license agreement was amended in November 2015 to defer license fee payments for a year, to allow us to elect a non-exclusive license at a lower cost, or

to terminate the license in return for paying a buy-out fee starting at £0.2 million ($0.3 million based upon the exchange rate in effect as of the date of the November 2015 amendment) if terminated in 2016 and reducing annually over the term of the 10 year agreement.

Year ended December 31, 2013 vs. Year ended December 31, 2012 (Restated)

Cash and cash equivalents increased from $7.7 million as of December 31, 2012 to $37.9 million as of December 31, 2013, an increase of $30.2 million, primarily due to an equity offering with net proceeds of approximately $29.0 million during the fourth quarter of 2013 and net increases in investees' distributions of $13.8 million.

Cash flow from operating activities

	Years Ended December 31,		
(in thousands)	2013	2012 (Restated)	Change
Net income (loss)	$(15,987)	$(13,129)	$(2,858)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	1,648	903	745
Accretion of asset retirement obligation	55	—	55
Non-cash research and development expenses	1,075	—	1,075
Impairment of property and equipment and goodwill	277	—	277
Provision for bad debt expense and note receivable	10	—	10
Share-based compensation expense	2,312	649	1,663
Earnings from equity method investments	(15,502)	(813)	(14,689)
Other non-cash items, net	56	65	(9)
Changes in operating assets and liabilities, net of effects of acquired businesses:			
Receivables	(6,711)	(4,219)	(2,492)
Related party receivables	1,224	3,108	(1,884)
Prepaid expenses and other assets	361	(692)	1,053
Costs incurred on uncompleted contracts	(19,313)	(1,334)	(17,979)
Restricted cash, long-term	(4,860)	—	(4,860)
Other long-term assets	(49)	(485)	436
Accounts payable	2,225	212	2,013
Accrued payroll and related liabilities	1,655	867	788
Other current liabilities	5,918	(757)	6,675
Billings on uncompleted contracts	33,220	4,185	29,035
Advance deposit, related party	7,166	(508)	7,674
Other long-term liabilities	268	1,018	(750)
Settlement and royalty indemnification obligation	(5,245)	(5,522)	277
Distributions from equity method investees, return on investment	5	—	5
Net cash used in operating activities	$(10,192)	$(16,452)	$6,260

Cash flows used in operating activities resulted from normal operating activities and reflect the timing of our working capital requirements, in addition to other items discussed below.

Deferred revenue and project costs resulted in an increase in the use of operating cash flows on a net basis of $10.8 million due to production of ACI and DSI equipment systems. However, due to the completed contract revenue recognition method, these billings and related costs had not yet been recognized within revenues and cost of sales, respectively.

During 2013, we received $8.0 million of advance deposits related to expected future royalties from CCS that are offset against of portion of future royalty earnings. Royalty earnings, net of the advanced payment offset positively impacted operating cash flows by $7.2 million in 2013. During 2012 we did not receive cash related to the advanced deposit. As future royalties are generated, we will receive less cash than royalties earned as a portion of the future earnings will be offset against prior period prepayments.

Settlement and royalty indemnification obligation payments relate to the payment of litigation liabilities as discussed in Note 15 of our Consolidated Financial Statements. These payments will continue through the third quarter of 2018 and will increase or decrease based upon the sale of activated carbon by a third party.
Our operating cash flow may also be significantly impacted by distributions from our equity investees which are classified as either a return on investment within operating cash flows or a return of investment with investing cash flows. During 2013 we received $13.8 million more in total cash distributions from investees compared to 2012.
Cash flow from investing activities

	Years Ended December 31,		
(in thousands)	2013	2012 (Restated)	Change
Purchase of investment securities	$(105)	$(105)	$—
Maturity of investment securities	105	4,405	(4,300)
Purchase of investment securities, restricted	(3,427)	(4,055)	628
Maturity of investment securities, restricted	5,227	2,290	2,937
Increase in restricted cash	(2,807)	—	(2,807)
Acquisition of property and equipment	(2,135)	(3,879)	1,744
Proceeds from sale of property and equipment	1	39	(38)
Principal payments received on notes receivable, related party	500	—	500
Acquisition of business	—	(1,600)	1,600
Purchase, contributions and advance on note receivable to equity method investees	—	(500)	500
Distributions from equity method investees in excess of cumulative earnings	13,813	53	13,760
Net cash provided by (used in) investing activities	$11,172	$(3,352)	$14,524

Purchase and maturity of investments in securities, restricted and increase in restricted cash
We are required to provide collateral for certain letters of credit for ACI and DSI equipment projects, as well as for future payments related to royalty indemnification obligation payments as discussed in Note 15 of our Consolidated Financial Statements. Investment securities and cash are pledged as security for letters of credit in the same amount as the investments. The restricted investments and cash increased most significantly from 2012 to 2013 due to the increase in ACI and DSI projects.
Acquisition of property and equipment
During 2013 and 2012, we used investing cash flows for the purchase of equipment and leasehold improvements.
Principal payments on note receivable, related party
During 2013, we collected the outstanding principal balance of $0.5 million related to a note receivable from CCSS which was loaned during 2012.
Acquisition
During 2012, BCSI acquired the DSI equipment assets of two related privately held companies (“Seller Companies”). The purchase consideration for the BCSI acquisition was $1.6 million. In addition, in connection with the purchase, we entered into certain agreements with the DSI Business Owner pursuant to which we are required to pay the DSI Business Owner up to $3.4 million contingent upon future services over the next five years. These payments were classified as compensation as they relate to future service. Upon the acquisition date, we prepaid $0.4 million of services, which were included as operating cash flows. The remaining $3.0 million is payable in monthly installments beginning August 31, 2012 and is expensed as services are provided. On December 31, 2014, we terminated the agreement and immediately recognized the expense related to all amounts that remained due as of that date. The remaining $1.7 million will be paid quarterly through the third quarter of 2017.
Equity method and cost method investments
As discussed within the Results of Operations and the operating cash flow activities above, our investing cash flow may be significantly impacted by the classification of cash distributions from equity method investees as either a return on investment within operating cash flows or a return of investment within investing cash flows. There was an increase in distributions from equity method investments within the investing section due to an increase in year over

year distributions from CCS. During 2013 and 2012, all cash distributions from CCS were included within investing cash flows.

Cash flow from financing activities

	Years Ended December 31,		
(in thousands)	2013	2012 (Restated)	Change
Gross proceeds from issuance of common stock	$31,050	$—	$31,050
Stock issuance and registration costs	(2,135)	(22)	(2,113)
Proceeds received upon exercise of stock options	354	21	333
Line of credit amendment fees	(100)	—	(100)
Net cash provided by (used in) financing activities	$29,169	$(1)	$29,170

Equity offering

During November 2013, we completed an equity offering that generated net proceeds of approximately $29.0 million. The offering was undertaken to raise funds for general working capital and corporate purposes, as well as to provide funds for ACI and DSI equipment projects.

Equity award activity

During the years ended December 31, 2013 and 2012 we received proceeds from the exercise of options.

Significant non-cash transactions

	Years Ended December 31,		
(in thousands)	2013	2012 (Restated)	Change
Restricted stock award reclassification (equity to liability)	$991	$29	$962
Issuance of common stock to settle liabilities	684	438	246

During the years ended December 31, 2013 and 2012, we reclassified certain restricted stock awards from equity to liabilities. Also during the years ended December 31, 2013 and 2012, we reclassified certain equity awards and issued common stock valued at $0.7 million and $0.4 million, respectively, to the Company's 401(k) plan to settle the Company's matching contributions related to employee contributions.

Contractual Obligations

As of December 31, 2014, our contractual obligations as of December 31, 2014 are as follows:

	Payment Due by Period				
(in thousands)	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Notes payable	$15,910	$1,479	$2,944	$4,584	$6,903
Imputed interest	12,132	2,484	4,672	3,502	1,474
Total notes payable	28,042	3,963	7,616	8,086	8,377
Capital lease obligations	17	9	8	—	—
Operating leases	5,439	1,608	2,745	1,086	—
Purchase obligations (a)	285	190	95	—	—
Settlement and royalty indemnification (b)	24,022	3,749	14,293	5,980	—
Other long-term liabilities (c)	3,417	388	699	777	1,553
	$61,222	$9,907	$25,456	$15,929	$9,930

(a) Purchase obligations does not include commitments pursuant to subcontracts and/or other purchase orders related to equipment contracts since such amounts are expected to be funded under contract billings. In addition, purchase obligations do not include potential future variable payment obligations related to the acquisition of our equity interest in RCM6, as disclosed in Note 8 in our Consolidated Financial Statements.

(b) Future cash payments related to our Settlement and royalty indemnification may differ from the payment amounts included within the above schedule due to actual revenues generated by our former equity method investment and changes in estimates related to future revenues. If such differences were to occur, these changes would also impact our results of operations and financial condition.

(c) Obligations related to Other long-term liabilities relate to our November 2014 acquisition of licensed technology from Highview, in the form of a long term, exclusive arrangement, requiring us to make payments over the course of 10 years in the amount of $3.4 million. The technology license agreement was amended in November 2015 to defer license fee payments for a year, to allow us to elect a non-exclusive license at a lower cost, or to terminate the license in return for paying a buy-out fee starting at £0.2 million ($0.3 million based upon the exchange rate in effect as of the date of the November 2015 amendment) if terminated in 2016 and reducing annually over the term of the 10 year agreement.

We have not included obligations related to 453A interest payments due to uncertainty of amounts payable in future periods relating to matters impacting future obligations such as the balance deferred under the installment method at each future balance sheet date and changes in interest rates. However, based upon the estimated deferred balance as of December 31, 2015 and interest rates in effect as of the date of this Form 10-K filing, we estimate paying approximately $4.5 million in interest related to 2015. If no future RC facilities obtain investors, the deferred gain balance would decrease and interest payments, assuming no changes in the applicable interest rate, would also decrease throughout the periods in the table above.

On October 22, 2015, we entered into a $15.0 million short-term loan agreement, with Franklin Mutual Quest Fund and MFP Investors LLC (the "Lenders"), and Wilmington Trust, National Association, as the administrative agent and collateral agent (the “Credit Agreement”). The loan under the Credit Agreement matures on April 22, 2016, subject to a three month extension at the Company's option to the extent certain conditions are met. The loan under the Credit Agreement bears interest at an annual rate equal to 10.5% and is subject to various prepayment and other premiums if certain events occur, including upon certain asset sales or receipts of certain types of cash proceeds outside the ordinary course of business, a change in control or an event of default. Upon closing, we received net proceeds of $13.5 million and recorded debt discounts and debt issuance costs of $1.5 million. The debt discounts and debt issuance costs will be amortized to interest expense using the effective interest method over the life of the Credit Agreement. The net proceeds are being used to fund our working capital needs and for general operating purposes. Based upon a maturity date of April 22, 2016, the Company will pay $15.0 million and $0.7 million, respectively, of principal and interest. As the loan under the Credit Agreement was entered into during 2015, it is not included in the table above.

In February 2016, the Company entered into an agreement with the DSI Business Owner to settle the remaining amounts owed as of the date of the agreement of approximately $1.1 million for $0.3 million. Amounts owed are included within the Notes Payable line item in the above table as of December 31, 2014.

Outstanding letters of credit were issued in connection with equipment sales agreements, support for future royalty obligations and other items. A summary of the information related to our letters of credit is as follows:

	Total Outstanding As of December 31,		Expiration of Letters of Credit as of December 31, 2014			
(in thousands)	2014	2013	Less than 1 year	1-3 years	4-5 years	After 5 years
Letters of credit	$11,625	$7,989	$2,527	$5,048	$4,050	$—

Additional information related to the letters of credit is included in Note 15 to our Consolidated Financial Statements, included in Item 8 of this Form 10-K.

Off-Balance Sheet Arrangements

Other than the operating leases, Line of Credit agreement and 453A interest obligations discussed in Note 15 of our Consolidated Financial Statements included elsewhere in this Form 10-K, we have no other material off-balance sheet arrangements as of December 31, 2014.

Critical Accounting Policies and Estimates

Our significant accounting policies are discussed in Note 1 to our Consolidated Financial Statements included elsewhere in this Form 10-K. In presenting our financial statements in conformity with accounting principles generally accepted in the U.S. ("U.S. GAAP"), we are required to make estimates and assumptions that affect the amounts reported therein. Several of the estimates and assumptions we are required to make relate to matters that are inherently uncertain as they pertain to future events. We base estimates on historical experience and other assumptions believed to be reasonable under the circumstances and evaluate these estimates on an ongoing basis. Actual results may differ from these estimates under different assumptions or conditions.

We believe that the accounting estimates discussed below are critical to understanding our historical and future performance, as these estimates relate to the more significant areas involving management’s judgments and estimates.

Revenue Recognition

We recognize revenue when: (i) persuasive evidence of a customer arrangement exists; (ii) the price is fixed or determinable; (iii) collectability is reasonably assured; and (v) product delivery has occurred or services have been rendered and its probable that performance guarantees, if any, will be met.

Equipment sales

We enter into contracts that require, over a period of months, the design and construction of emissions control systems ("extended equipment contracts"). Revenue from such extended equipment contracts is recorded using the percentage of completion cost to cost method based on costs incurred to date compared with total estimated contract costs. However, if there is not sufficient information to estimate costs for extended equipment contracts, the completed contract method is used.

Under the completed contract method, revenues and costs from extended equipment contracts are deferred and recognized when contract obligations are substantially complete. The Company defines substantially complete as delivery of equipment and start-up at the customer site, and, (as applicable to DSI systems), the completion of any major warranty service. Such costs are accumulated in the Costs in excess of billings on uncompleted contracts line item in the Consolidated Balance Sheets, and typically include direct materials, direct labor and subcontractor costs, and indirect costs related to contract performance, such as indirect labor, supplies, tools and repairs. For each of the years ended 2014, 2013 and 2012, we did not have sufficient information to measure ongoing percentage of completion using cost to cost method for our extended equipment contracts, accordingly, the completed contract method of revenue recognition has been used for each of these years and revenues and costs are deferred until the equipment is placed into service and contract obligations are substantially complete.

When multiple contracts exist with a single counterparty, we evaluate revenue recognition on a contract by contract basis. Provisions for estimated losses on uncompleted contracts are recognized when it has been determined that a loss is probable.

Costs of revenues include all labor, fringe benefits, subcontract labor, chemical and coal costs, materials, equipment, supplies, travel costs and any other costs and expenses directly related to the Company’s production of revenue. To the extent that they occur, the Company recognizes estimated loss provisions related to contracts in the period that the potential loss is identified.

In addition, warranty costs for ACI equipment systems are estimated based on historical experience and are recorded as a percentage of revenue when the equipment is substantially complete. Warranty costs, comprised of the cost of replacement materials and direct labor, are included within the Equipment sales cost of revenue line of the Consolidated Statements of Operations.

Warranty costs for DSI equipment systems cannot be estimated due to a lack of historical experience manufacturing DSI systems and the resulting claims history, if any, needed to determine an appropriate warranty amount. Therefore, revenue recognition has been deferred until the end of the warranty period, generally 12 to 24 months following substantial completion. As warranty claims are incurred, such costs are deferred within the Costs in excess of billings on uncompleted contracts line item in the Consolidated Balance Sheets, until such time that revenue and cost of revenues are recognized.

Additional details related to long term equipment revenues are described in Note 1 of the Consolidated Financial Statements of this Form 10-K.

Performance Guarantee on Equipment Systems

In the normal course of business related to ACI and DSI systems, we may guarantee certain performance thresholds during a discrete performance testing period that does not extend beyond six months from the initial test date, the commencement of which is determined by the customer. Performance thresholds include such matters as the achievement of a certain level of mercury removal and other emissions based upon the injection of a specified quantity of a qualified AC or other chemical at a specified rate given other plant operating conditions, availability of equipment and electric power usage. In the event the equipment fails to perform as specified during the testing period, we may have an obligation to correct or replace the equipment. In the event the level of emissions removal is not achieved, we may have a “make right” obligation within the contract limits. As of December 31, 2014, we have not incurred a performance guarantee claim. If incurred, guarantees would be included within the Equipment sales cost of revenue line of the Consolidated Statements of Operations. The Company is currently working to modify and correct two performance guarantee issues related to emissions control ("EC") systems installed in 2015. Resolution of these performance guarantees is not expected to result in a material adverse effect on the Company’s operating performance or liquidity in 2015 or beyond.

Additional details related to performance guarantees are described in Note 1 and Note 15 of the Consolidated Financial Statements of this Form 10-K.

Impairment of Equity Method Investments

Equity method investments at December 31, 2014 totaled $19.6 million, representing 21% of total assets. Our equity method investments are non-publicly traded ventures with other companies in businesses related to RC and are recorded at the carrying value of the investment. Equity investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable. In the event that a decline in fair value of an investment occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. There were no indicators of impairment of equity method investments as of or during the years ended December 31, 2014, December 31, 2013 or December 31, 2012. Information related to our equity method investees is included in Note 8 of the Consolidated Financial Statements of this Form 10-K.

Settlement and Royalty Indemnification

The Settlement and royalty indemnification at December 31, 2014 totaled $24.0 million, representing 25% of total liabilities. The Settlement and royalty indemnification recorded at December 31, 2014 represents our estimate of the future obligations of the Company related to certain future revenues generated from a former equity method investment of the Company through the second quarter of 2018 as described in Note 2 and Note 15 of the Consolidated Financial Statements of this Form 10-K. Our estimate is based upon projections of future revenues subject to royalty indemnification payments. It is reasonably possible that future revenues subject to the royalty indemnification payments may be materially different from those currently projected and changes in estimates will impact our Consolidated Statements of Operations.

Share-Based Compensation Expense Related to Performance Stock Units ("PSU")

We grant certain executives of the Company PSU's that vest in equal installments over a period of three years subject to the grantee’s continuous service with the Company and the grant of performance share units . Each PSU represents a

contingent right to receive shares of the Company's common stock if the Company meets certain performance measures over the requisite period. Compensation expense is recognized for PSU awards on a straight-line basis over a three year service period based on the estimated fair value at the date of grant using a Monte Carlo simulation model. The Monte Carlo model determines the grant date fair value of the award based upon estimated company stock performance compared to the projected relative placement of the Company's total stockholder return ("TSR") for the award period with approximately 75% of the award based on the relative performance of the Company's TSR performance compared to the respective TSR's of a specified group of peer

companies and the remaining portion of the award based on the Company's TSR performance compared to the Russell 3000 Index. Different Monte Carlo simulation results would result in a different grant date fair value and would impact the share-based compensation expense we would recognize over the award period in our Consolidated Statements of Operations. Refer to Note 14 of our Consolidated Financial Statements of this Form 10-K for additional information regarding our PSU awards.

Legal Proceedings

The Company is involved in certain legal actions. The outcomes of these legal actions are not within our control and may not be known for prolonged periods of time. In some actions, the claimants seek monetary damages and other penalties, which could require significant expenditures. In accordance with U.S. GAAP, we record a liability in our Consolidated Financial Statements for loss contingencies when a loss is known or considered probable and the amount can be reasonably estimated. If the reasonable estimate of a known or probable loss is a range, and no amount within the range is a better estimate than any other, the minimum amount of the range is accrued. If a loss is reasonably possible but not known or probable, and can be reasonably estimated, the estimated loss or range of loss is disclosed. Estimates of probable losses resulting from litigation and governmental proceedings involving the Company are inherently difficult to predict, particularly when the matters are in early procedural stages, with incomplete facts or legal discovery; involve unsubstantiated or indeterminate claims for damages; potentially involve penalties or fines; or could result in a change in business practice. We have not recorded an expense related to losses in connection with unsettled legal matters as of December 31, 2014 because any potential loss was not then probable or reasonably estimable under U.S. GAAP. However, a change in this estimate could materially impact our Consolidated Statements of Operations. Refer to Note 15 of our Consolidated Financial Statements of this Form 10-K for additional information regarding legal matters.

Income Taxes

We account for income taxes as required by general accounting principles, under which management judgment is required in determining income tax expense and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. Tax assessments may arise several years after tax returns have been filed. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We recognize deferred tax assets to the extent that we believe these assets are more likely than not to be realized. In making such a determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations.

We are currently in a tax net operating loss position in several jurisdictions in which we operate, including the U.S. federal jurisdiction, resulting in significant deferred tax assets. We establish a valuation allowance against our deferred tax assets when, based upon the weight of all available evidence, we believe it is more likely than not that some portion or all of the deferred tax assets will not be realized. As of December 31, 2014 and 2013, all existing deferred tax assets have been reduced to net asset values of zero via full valuation allowances. We have established these valuation allowances for our deferred tax assets that in our judgment will not be realized. In making this determination, we have considered our historical tax loss history as well as the relative impact of all of the available positive and negative evidence regarding future sources of taxable income and tax planning strategies. However, there could be material impact to our effective tax rate if there is a significant change in our judgment. If and when our judgment changes, then the valuation allowances are adjusted through the provision for income taxes in the period in

which this determination is made. Refer to Note 17 of our Consolidated Financial Statements of this Form 10-K for additional information regarding our income tax provision.

Recently Issued Accounting Standards

Refer to Note 1 of our Consolidated Financial Statements of this Form 10-K for information regarding recently issued accounting standards.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

The Company is exposed to market risk from changes in interest rates. The Company’s assets include cash equivalents and restricted cash subject to variable interest rates. Restricted cash is required to provide collateral for certain letters of credit for ACI and DSI equipment projects, as well as for future payments related to royalty indemnification obligation payments as discussed in Note 15 of the Consolidated Financial Statements. As of December 31, 2014, $25.2 million of cash was earning interest at variable rates.

The Company is exposed to interest rate risk related to its obligations to pay 453A interest to the IRS. At December 31, 2014 the applicable 453A interest rate, which, per the applicable rules is rounded to the nearest full percentage to determine interest due, was 3.34%, which was rounded to 3.00%. A 10% proportionate increase in the applicable 453A interest rate would increase 453A interest expense by $1.2 million.

The Company is also exposed to interest rate risk in connection with its Line of Credit, if amounts are drawn, which bears interest at a variable rate, which is the higher of 5% or the “Prime Rate” plus 1%. At December 31, 2014 the Prime Rate was 3.25% but no amounts were outstanding on the Line of Credit.

Using the December 31, 2014 cash balances, a 10% proportionate increase in short-term interest rates on an annualized basis compared to the actual interest rates as of December 31, 2014, and a corresponding and parallel shift in the remainder of the yield curve, would result in an increase to pretax income of $25 thousand. Conversely, a corresponding decrease in interest rates would result in a comparable change to pretax income. Actual interest rates could change significantly more than 10%. There are inherent limitations in the sensitivity analysis presented, primarily due to the assumption that interest rate movements are linear and instantaneous. As a result, the analysis is unable to reflect the potential effects of more complex market changes that could arise, which may positively or negatively affect income.

Due to the significance of the Company's equity method investments, the Company is also exposed to interest rate risk dependent upon the composition of the individual balance sheets of the Company's investees.

Foreign Currency Risk

The Company is exposed to changes in currency rates as a result of its investments in foreign operations. U.S. dollars needed for payments due in foreign currencies will increase or decrease compared to prior periods as a result of changes in foreign currency exchange rates. The Company does not expect that such exposure would result in any material gains or losses from foreign currency transactions completed in the normal course of business.

Commodity Price Risk

In the normal course of our business, we are exposed to market risk or price fluctuations related to the goods we procure related to our revenue-producing activities. Components of ACI and DSI systems, which are or may be significant to such revenue producing activities, have market prices that fluctuate regularly, but not widely. We do not engage in commodity hedging transactions for raw materials, though we have committed and will continue to commit to purchase certain materials for specified periods of time. Significant increases in the prices of our products due to increases in the cost of goods could have a negative effect on demand for products and on profitability. However, to mitigate risk related to price fluctuations, commodity purchases are made concurrently with contracts being awarded. Therefore, the cost of significant price increases would likely be able to be materially passed on to the customer.

Item 8. Financial Statements and Supplementary Data

Advanced Emissions Solutions, Inc.
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Advanced Emissions Solutions, Inc.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Advanced Emissions Solutions, Inc. and Subsidiaries

We have audited the accompanying consolidated balance sheets of Advanced Emissions Solutions, Inc. and subsidiaries as of December 31, 2014 and 2013, and the related consolidated statements of operations, stockholders' deficit, and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Advanced Emissions Solutions, Inc. and subsidiaries as of December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, the 2012 financial statements have been restated to correct misstatements.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Advanced Emissions Solutions, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Our report dated February 29, 2016 expressed an opinion that Advanced Emissions Solutions, Inc. and subsidiaries had not maintained effective internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

/s/ Hein & Associates LLP

Denver, Colorado
February 29, 2016

Advanced Emissions Solutions, Inc. and Subsidiaries
Consolidated Balance Sheets

(in thousands, except share data)	As of December 31, 2014	2013
ASSETS		
Current assets:		
Cash and cash equivalents	$25,181	$37,890
Receivables, net	16,594	12,943
Receivables, related parties, net	1,439	630
Investment securities	—	105
Restricted cash	2,527	—
Investment securities, restricted	—	406
Costs in excess of billings on uncompleted contracts	6,153	2,700
Prepaid expenses and other assets	2,535	681
Total current assets	54,429	55,355
Restricted cash, long-term	8,771	7,667
Property and equipment, net of accumulated depreciation of $5,924 and $3,901, respectively	4,808	5,799
Investment securities, restricted, long-term	336	332
Cost method investment	2,776	—
Equity method investments	19,584	3,034
Other assets	2,995	1,337
Total Assets	$93,699	$73,524
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$7,514	$5,186
Accrued payroll and related liabilities	5,158	5,101
Current portion of notes payable, related parties	1,479	—
Billings in excess of costs on uncompleted contracts	22,518	20,269
Settlement and royalty indemnity obligation	3,749	4,622
Other current liabilities	6,739	7,381
Total current liabilities	47,157	42,559
Long-term portion of notes payable, related parties	14,431	—
Settlement and royalty indemnification, long-term	20,273	24,021
Advance deposit, related party	6,524	8,659
Other long-term liabilities	6,011	4,452
Total Liabilities	94,396	79,691
Commitments and contingencies (Note 15)		
Stockholders' deficit:		
Preferred stock: par value of $.001 and no par value per share, respectively, 50,000,000 shares authorized, none outstanding	—	—
Common stock: par value of $.001 per share, 100,000,000 shares authorized, 21,853,263 and 21,661,908 shares issued and 21,643,342 and 21,397,919 shares outstanding at December 31, 2014 and 2013, respectively	22	22
Additional paid-in capital	110,169	106,086
Accumulated deficit	(110,888)	(112,275)
Total stockholders' deficit	(697)	(6,167)
Total Liabilities and Stockholders' Deficit	$93,699	$73,524

See Notes to the Consolidated Financial Statements.

Advanced Emissions Solutions, Inc. and Subsidiaries
Consolidated Statements of Operations

(in thousands, except per share data)	Years Ended December 31, 2014	2013	2012 (Restated)
Revenues:			
Equipment sales	$12,044	$5,747	$7,584
Consulting services	4,488	6,790	8,017
Chemicals and other	391	749	715
Total revenues	16,923	13,286	16,316
Operating expenses:			
Equipment sales cost of revenue, exclusive of depreciation and amortization	9,277	9,459	5,540
Consulting services cost of revenue, exclusive of depreciation and amortization	2,203	3,827	5,125
Chemical and other cost of revenue, exclusive of depreciation and amortization	140	382	414
Payroll and benefits	20,767	16,228	11,463
Rent and occupancy	2,468	2,128	1,592
Legal and professional fees	14,430	4,534	2,717
General and administrative	6,066	4,101	3,159
Research and development, net	1,521	3,237	252
Depreciation and amortization	1,865	1,648	903
Total operating expenses	58,737	45,544	31,165
Operating loss	(41,814)	(32,258)	(14,849)
Other income (expenses):			
Earnings from equity method investments	42,712	15,502	813
Royalties, related party	6,410	2,505	1,446
Interest income	74	109	308
Interest expense	(5,725)	(1,338)	(798)
Other	26	(44)	(35)
Total other income (expense), net	43,497	16,734	1,734
Income (loss) before income tax expense	1,683	(15,524)	(13,115)
Income tax expense	296	463	14
Net income (loss)	$1,387	$(15,987)	$(13,129)
Earnings (loss) per common share:			
Basic	$0.06	$(0.78)	$(0.65)
Diluted	$0.06	$(0.78)	$(0.65)
Weighted-average number of common shares outstanding:			
Basic	21,554	20,103	19,829
Diluted	22,079	20,103	19,829

See Notes to the Consolidated Financial Statements.

Advanced Emissions Solutions, Inc. and Subsidiaries
Consolidated Statements of Changes in Stockholders' Deficit
For the Years Ended December 31, 2014, 2013 and 2012

(in thousands, except share data)	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances, December 31, 2011, as previously reported	19,992,288	$20	$63,165	$ (66,694)	$ (3,509)
Adjustments (Note 2)	—	—	10,590	(16,465)	(5,875)
Balances, December 31, 2011 (Restated)	19,992,288	$20	$73,755	$ (83,159)	$ (9,384)
Stock-based compensation	78,506	—	649	—	649
Issuance of stock to 401(k) plan	38,886	—	438	—	438
Issuance of stock upon exercise of options, net	3,932	—	21	—	21
Reclassification and settlement of equity awards	—	—	(29)	—	(29)
Stock issuance costs	—	—	(22)	—	(22)
Net loss	—	—	—	(13,129)	(13,129)
Balances, December 31, 2012 (Restated)	20,113,612	$20	$74,812	$ (96,288)	(21,456)
Stock-based compensation	70,420	1	2,312	—	2,313
Issuance of stock to 401(k) plan	38,296	—	603	—	603
Issuance of stock upon exercise of options, net	54,376	—	354	—	354
Reclassification and settlement of equity awards	—	—	(991)	—	(991)
Issuance of stock to settle liabilities	5,204	—	81	—	81
Issuance of stock for cash	1,380,000	1	31,050	—	31,051
Stock issuance costs	—	—	(2,135)	—	(2,135)
Net loss	—	—	—	(15,987)	(15,987)
Balances, December 31, 2013	21,661,908	$22	$106,086	$ (112,275)	(6,167)
Stock-based compensation	40,729	—	4,712	—	4,712
Issuance of stock to 401(k) plan	5,250	—	127	—	127
Issuance of stock upon exercise of options	260,126	—	243	—	243
Repurchase of shares to satisfy minimum tax withholdings	(114,750)	—	(1,500)	—	(1,500)
Reclassification and settlement of equity awards	—	—	501	—	501
Net income	—	—	—	1,387	1,387
Balances, December 31, 2014	21,853,263	$22	$110,169	$ (110,888)	$ (697)

See Notes to the Consolidated Financial Statements.

Advanced Emissions Solutions, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2014, 2013 and 2012

(in thousands)	Years Ended December 31, 2014	2013	2012 (Restated)
Cash flows from operating activities			
Net income (loss)	$1,387	$(15,987)	$(13,129)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	1,865	1,648	903
Accretion of asset retirement obligation	58	55	—
Non-cash research and development expenses	—	1,075	—
Impairment of property and equipment and goodwill	355	277	—
Provision for bad debt expense and note receivable	500	10	—
Interest costs added to principal balance of notes payable	1,124	—	—
Consulting expense financed through note payable	1,600	—	—
Share-based compensation expense	4,712	2,312	649
Earnings from equity method investments	(42,712)	(15,502)	(813)
Other non-cash items, net	80	56	65
Changes in operating assets and liabilities, net of effects of acquired businesses:			
Receivables	(3,651)	(6,711)	(4,219)
Related party receivables	(809)	1,224	3,108
Prepaid expenses and other assets	(1,877)	361	(692)
Costs incurred on uncompleted contracts	(56,606)	(19,313)	(1,334)
Restricted cash	(2,387)	—	—
Restricted cash, long-term	—	(4,860)	—
Other long-term assets	(47)	(49)	(485)
Accounts payable	2,328	2,225	212
Accrued payroll and related liabilities	686	1,655	867
Other current liabilities	(672)	5,918	(757)
Billings on uncompleted contracts	55,621	33,220	4,185
Advance deposit, related party	(2,135)	7,166	(508)
Other long-term liabilities	144	268	1,018
Settlement and royalty indemnification obligation	(4,622)	(5,245)	(5,522)
Distributions from equity method investees, return on investment	2,509	5	—
Net cash used in operating activities	(42,549)	(10,192)	(16,452)

(in thousands)	Years Ended December 31, 2014	2013	2012 (Restated)
Cash flows from investing activities			
Purchase of investment securities	(105)	(105)	(105)
Maturity of investment securities	210	105	4,405
Purchase of investment securities, restricted	(3)	(3,427)	(4,055)
Maturity of investment securities, restricted	406	5,227	2,290
Increase in restricted cash	(1,243)	(2,807)	—
Acquisition of property and equipment	(1,563)	(2,135)	(3,879)
Proceeds from sale of property and equipment	26	1	39
Principal payments received on notes receivable, related party	—	500	—
Advance on note receivable	(500)	—	—
Acquisition of business	—	—	(1,600)
Purchase of cost method investment	(2,776)	—	—
Purchase, contributions and advance on note receivable to equity method investees	(6,631)	—	(500)
Distributions from equity method investees in excess of cumulative earnings	43,584	13,813	53
Net cash provided by (used in) investing activities	31,405	11,172	(3,352)
Cash flows from financing activities			
Gross proceeds from issuance of common stock	—	31,050	—
Stock issuance and registration costs	—	(2,135)	(22)
Proceeds received upon exercise of stock options	243	354	21
Repurchase of shares to satisfy minimum tax withholdings	(1,500)	—	—
Principal payments on note payable	(238)	—	—
Line of credit amendment fees	(70)	(100)	—
Net cash provided by (used in) financing activities	(1,565)	29,169	(1)
Increase (Decrease) in Cash and Cash Equivalents	(12,709)	30,149	(19,805)
Cash and Cash Equivalents, beginning of period	37,890	7,741	27,546
Cash and Cash Equivalents, end of period	$25,181	$37,890	$7,741
Supplemental disclosures of cash information:			
Cash paid for interest	$5,201	$973	$676
Cash paid for income taxes	566	9	—
Supplemental disclosure of non-cash investing and financing activities:			
Restricted stock award reclassification (equity to liability)	501	991	29
Issuance of common stock to settle liabilities	127	684	438
Acquisition of equity method investment through note payable	13,301	—	—
Acquisition of technology license through long-term payable	1,525	—	—

See Notes to the Consolidated Financial Statements.

Notes to Consolidated Financial Statements

Note 1 - Summary of Operations and Significant Accounting Policies

Nature of Operations

ADA-ES, Inc. (“ADA”), a Colorado corporation, was incorporated in 1997. Pursuant to an Agreement and Plan of Merger ("Reorganization"), effective July 1, 2013, Advanced Emissions Solutions, Inc. (“ADES”), a Delaware company incorporated in 2011, replaced ADA as the publicly-held corporation and ADA became a wholly-owned subsidiary of ADES. Each outstanding share of ADA’s common stock automatically converted into one share of common stock of ADES and the shareholders of ADA became stockholders of ADES on a one-for-one basis, holding the same number of shares in and the same ownership percentage of ADES after the Reorganization as they held in and of ADA prior to the Reorganization. ADES’s Second Amended and Restated Certificate of Incorporation authorizes the issuance of 100,000,000 shares of common stock, par value per share of $0.001 and 50,000,000 shares of preferred stock, par value per share of $0.001. ADES’s common stock became listed on the NASDAQ Capital Market under “ADES”, ADA’s previous symbol, and ADA’s stock ceased trading on the NASDAQ Capital Market. As of March 30, 2015, ADES's common stock was delisted from the NASDAQ Capital Markets and began trading on the OTC Pink® Marketplace - Limited Information Tier under the trading symbol "ADES". For further information on the reorganization, see Note 21 of the Consolidated Financial Statements.

As this filing pertains to the year ended December 31, 2014, the terms the “Company”, “we”, “us” and “our” means ADA for the periods through and including the period ended June 30, 2013 and ADES for the periods beginning after July 1, 2013. As of December 31, 2014 ADES's wholly-owned subsidiaries included:

- ADA
- BCSI, LLC ("BCSI")
- Advanced Clean Energy Solutions, LLC ("ACES")
- ADEquity, LLC ("ADEquity")
- ADA Environmental Solutions, LLC (“ADA LLC”)
- ADA Intellectual Property, LLC (“ADA IP”)
- ADA-RCM6, LLC (“ADA-RCM6”)

None of ACES, ADEquity, ADA IP or ADA-RCM6 had operations prior to 2014. ADA LLC ceased operations in 2012.

Subsequent to December 31, 2014, the Company's wholly-owned subsidiaries also include ADA Analytics, LLC and ADA Analytics Israel Ltd. (collectively "ADA Analytics")

ADES and its subsidiaries have continued to conduct the business in substantially the same manner as conducted prior to the Reorganization.

Additionally, we are an investor in Clean Coal Solutions, LLC (“CCS”), Clean Coal Solutions Services, LLC ("CCSS") and RCM6, LLC ("RCM6"), whose performances significantly impact our financial position and results of operations as our investments are accounted for under the equity method of accounting. As of December 31, 2014 the Company holds equity interests of 42.50%, 50.00%, and 24.95% in CCS, CCSS, and RCM6, respectively.

The Company is principally engaged in providing environmental and emissions control equipment, technologies and specialty chemicals to the coal-burning electric power generation industry. Although the Company has historically operated at a net loss, the Company generates substantial earnings and tax credits under Section 45 of the Internal Revenue Code ("IRC") from equity method investments and royalty payment streams related to its technologies utilized by its customers that results in enhanced combustion and reduced emissions of nitrogen oxides ("NO_x") and mercury from coal. The Company’s sales occur principally throughout the United States.

Restatement

The Company has determined that certain material errors were included in the Company’s previously reported financial statements and applicable amounts have been restated as described in Note 2.

Principles of Consolidation

The Consolidated Financial Statements include accounts of wholly owned subsidiaries. All investments in partially owned entities for which the Company has greater-than-20% ownership are accounted for using the equity method based on the legal form of the Company's ownership percentage and the applicable ownership percentage of the entity and are included in the

Equity method investments line item in the accompanying Consolidated Balance Sheets. In situations where an investment in a partially owned entity has been determined to be a variable interest entity ("VIE") and the Company is deemed to be the primary beneficiary in accordance with the variable interest model of consolidation, the Company will consolidate the investment into its financial statements. No VIEs were consolidated by the Company during the years ended December 31, 2014, 2013 and 2012 (Restated), respectively. Additionally, during the years ended December 31, 2014, 2013 and 2012 (Restated), there were no greater-than-50%-owned affiliates whose financial statements were not consolidated. All significant intercompany balances and transactions have been eliminated in consolidation.

Cash and Cash Equivalents

Cash and cash equivalents include bank deposits and other highly liquid investments purchased with an original maturity of three months or less.

Restricted Cash

Restricted cash primarily consists of funds withheld to provide collateral support for certain Letters of Credit that had been issued to i) customers related to certain contractual performance and payment guarantees, and ii) certain settlement parties to provide security for continuing royalty indemnification payments related to the settlement of certain litigation. Upon covenant non-compliance, the Company was required to secure such letters of credit with 100% cash collateral.

Receivables and Credit Policies

Accounts receivable balances are uncollateralized customer obligations due under normal trade terms requiring payment typically within 30-45 days from the invoice date and are stated net of allowance for doubtful accounts. The Company records allowances for doubtful accounts when it is probable that the accounts receivable balances will not be collected. The following tables show the receivables balances:

	As of December 31,	
(in thousands)	2014	2013
Receivables	$16,609	$12,958
Less allowance for doubtful accounts	(15)	(15)
Total	$16,594	$12,943

	As of December 31,	
(in thousands)	2014	2013
Receivables, related parties	$1,439	$630
Total	$1,439	$630

During the years ended December 31, 2014, 2013 and 2012 (Restated), the Company recorded zero, $10 thousand and zero, respectively, related to the provision for bad debt expenses. These amounts were included within the General and administrative line item in the Consolidated Statements of Operations.

Notes receivable are reported at their outstanding principal balances, adjusted for any amounts determined to be uncollectible. Interest income is accrued and credited to income based on the unpaid principal balance outstanding. The accrual of interest is discontinued when substantial doubt exist about the ability to collect principal and interest based upon the contractual terms. Notes receivable are included within the Other assets line item in the Consolidated Balance Sheets. Additional details regarding Note receivable balances are included in Note 12.

Inventory

Inventories are stated at the lower of cost or market and consist principally of parts, components and materials for activated carbon injection ("ACI") and dry sorbent injection ("DSI") projects. The cost of inventory is determined using the first-in-first-out ("FIFO") method. Inventories are included within the Other assets line item in the Consolidated Balance Sheets. For the years ending December 31, 2014 and 2013, the balance of inventory was comprised of materials and supplies of $0.6 million and $0.1 million, respectively.

Goodwill
Goodwill represents the excess of purchase price over tangible and intangible assets acquired less liabilities assumed arising from business combinations. The Company had no goodwill as of December 31, 2014 or 2013. During 2012 the Company did not recognize any goodwill impairment charges. During 2013, the Company impaired the goodwill balance related to the 2012 BCSI acquisition, of $0.2 million, described in Note 9. This impairment charge is included within the General and administrative line item in the accompanying Consolidated Statements of Operations.
Other Intangible Assets
Other Intangible assets consist of patents and licensed technology and are included in the Other assets line item in the Consolidated Balance Sheets. During 2014, 2013 and 2012, the Company did not recognize any intangible asset impairment charges.
The Company has developed technologies resulting in patents being granted by the U.S. Patent and Trademark Office. All research and development costs associated with the technology development are expensed as incurred. Legal costs associated with securing the patent are capitalized and amortized over the legal or useful life beginning on the patent filing date.

	Years Ended December 31,				
	2014			2013	
(in thousands, except years)	Weighted-Average Amortization Period (in years)	Initial Cost	Net of Accumulated Amortization	Initial Cost	Net of Accumulated Amortization
Patents	20	$635	$523	$502	$423
Licensed technology	10	1,525	1,512	—	—
Total	12.9	$2,160	$2,035	$502	$423

Included in the Consolidated Statements of Operations is amortization expense of $32 thousand, $24 thousand and $18 thousand for the years ended December 31, 2014, 2013 and 2012 (Restated), respectively. The estimated future amortization expense for existing intangible assets as of December 31, 2014 is expected to be $0.2 million for each of the five succeeding fiscal years.
Investment Securities
Investment securities represent certificates of deposits with original maturities greater than 90 days. Investment securities pledged as security for letters of credit, in the same amount as the investments, are classified as restricted in the accompanying Consolidated Balance Sheets and are carried at fair value. Investments in partially-owned subsidiaries for which the Company has less-than-20% ownership are accounted for using the cost method. Cost method investments are evaluated for impairment upon an indicator of impairment such as an event or change in circumstances that may have a significant adverse effect on the fair value of the investment. If no such events or changes in circumstances have occurred, the fair value is estimated only if practicable to do so.
Equity Method of Accounting
The investments in entities in which the Company does not have a controlling interest (financial or operating), but where it has the ability to exercise significant influence over operating and financial policies, are accounted for using equity-method accounting. Whether or not the Company exercises significant influence with respect to an investee depends on an evaluation of several factors including, among others, representation on the investee company's board of directors and ownership level. Under the equity method of accounting, an investee company's accounts are not reflected within the Company's Consolidated Balance Sheets and Consolidated Statements of Operations; however, the Company's share of the earnings or losses of the investee company is reflected in the Earnings from equity method investments line item in the Consolidated Statements of Operations. The Company's carrying value in an equity method investee company is reflected in the Equity method investments line in the Consolidated Balance Sheets. When the Company receives distributions in excess of the carrying value of the investment and the Company has not guaranteed any obligations of the investee, nor is it required to provide additional funding to the investee, the Company recognizes such excess distributions as equity method earnings in the period the distributions occur. When the investee subsequently reports income, the Company does not record its share of such income until it equals the amount of distributions in excess of carrying value that were previously recognized in income. During the years ended December 31, 2014, 2013 and 2012 (Restated), the Company had no such guarantees or requirements to provide

additional funding.

Additionally, when the Company's carrying value in an equity method investment is zero and the Company has not guaranteed any obligations of the investee, nor is it required to provide additional funding to the investee, the Company will not recognize its share of any reported losses by the investee until future earnings are generated to offset previously unrecognized losses. As such, equity income or loss reported on the Company's income statement may differ from a mathematical calculation of net income or loss attributable to our equity interest based upon the factor of our equity interest and the net income or loss attributable to equity owners as shown on investee companies' income statements. Likewise, distributions from equity method investees are reported on the Company's Consolidated Statements of Cash Flows as "return on investment" within Operating cash flows until such time as the carrying value in an equity method investee company is reduced to zero; thereafter, such distributions are reported as "distributions in excess of cumulative earnings" within Investing cash flows.

Royalties, Related Party

The Company realizes royalties from licensing its M-45™ and M-45-PC™ emission control technologies to CCS. Royalties are earned based upon (i) a percentage of the per-ton, pre-tax margin of Refined Coal ("RC") produced with the M-45 License that produces a valid and verifiable Section 45 Tax Credit, net of certain allocable operating expenses, (ii) a percentage of the Section 45 tax credits claimed, and not invested by a licensee, sublicensee, or licensee affiliate using the M-45 License, net of certain allocable operating expenses and (iii) a percentage of the revenue, net of all direct expenses, received by CCS as a direct result of CCS's exercise of the M-45 License.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation and includes leasehold improvements. Depreciation on assets is computed using the straight-line method over the lesser of the estimated useful lives of the related assets or the lease term (ranging from 2 to 10 years). Maintenance and repairs which do not extend the useful life of the respective asset are charged to Operating expenses as incurred. When assets are retired, or otherwise disposed of, the property accounts are relieved of costs and accumulated depreciation and any resulting gain or loss is credited or charged to income. The Company performs an evaluation of the recoverability of the carrying value of its long-lived assets to determine if facts and circumstances indicate that the carrying value of assets may be impaired and if any adjustment is warranted. There were no indicators of impairment during the year ended December 31, 2012 (Restated). The Company recognized impairment charges on property and equipment related to the Company's BCSI subsidiary as projected future cash flows from operations related to the property and equipment did not support the carrying value recorded by the Company during the years ended December 31, 2014 and 2013 of $0.4 million and $0.1 million, respectively. These impairment charge are included within the General and administrative line item in the accompanying Consolidated Statements of Operations.

Revenue Recognition

The Company recognizes revenue when: (i) persuasive evidence of a customer arrangement exists; (ii) the price is fixed or determinable; (iii) collectability is reasonable assured; and (iv) product delivery has occurred or services have been rendered and it is probable that performance guarantees, if any, will be met.

Equipment sales

The Company enters into contracts that require, over a period of months, the design and construction of emissions control systems ("extended equipment contracts"). Revenue from such extended equipment contracts is recorded using the percentage of completion cost to cost method based on costs incurred to date compared with total estimated contract costs. However, if the Company does not have sufficient information to estimate costs for extended equipment contracts, the completed contract method is used.

Under the completed contract method, revenues and costs from extended equipment contracts are deferred and recognized when contract obligations are substantially complete. The Company defines substantially complete as delivery of equipment and start-up at the customer site, and, (as applicable to DSI systems), the completion of any major warranty service. Such costs are accumulated in the Costs in excess of billings on uncompleted contracts or Billings in excess of costs on uncompleted contracts line items in the Consolidated Balance Sheets, and typically include direct materials, direct labor and subcontractor costs, and indirect costs related to contract performance, such as indirect labor, supplies, tools and repairs. For each of the years ended 2014, 2013 and 2012, the Company did not have sufficient information to measure ongoing performance for its extended equipment contracts. Accordingly, the

completed contract method of revenue recognition has been used for each of these years and revenues and costs are deferred until the equipment is placed into service and contract obligations are substantially complete.

When multiple contacts exist with a single counterparty, the Company evaluates revenue recognition on a contract-by-contract basis. Provisions for estimated losses on uncompleted contracts are recognized when it has been determined that a loss is probable.

The Company also enters into other non extended equipment contracts for which the Company recognizes revenues on time and material contracts as services to build equipment systems are performed or as equipment is delivered.

Consulting services

The Company recognizes revenue on time and material contracts as services are performed.

Chemicals and other sales

Revenues for direct sales of chemicals and other ancillary products not provided in the performance of construction of emissions control systems (extended equipment sales) are recognized at the date of delivery to, and acceptance by the customer.

Cost of Revenues

Costs of revenues include all labor, fringe benefits, subcontract labor, chemical and coal costs, materials, equipment, supplies, travel costs and any other costs and expenses directly related to the Company’s production of revenue. The Company records estimated contract losses, if any, in the period they are determined.

Additionally, warranty costs for ACI equipment systems are estimated based on historical experience and are recorded as a percentage of revenue when the equipment is substantially complete. Warranty costs, comprised of the cost of replacement materials and direct labor, are included within the Equipment sales cost of revenue line of the Consolidated Statements of Operations.

Warranty costs for DSI equipment systems cannot be estimated due to a lack of historical experience manufacturing DSI systems and the resulting claims history, if any, needed to determine an appropriate warranty amount. Therefore, revenue recognition has been deferred until the end of the warranty period, generally 12 to 24 months following substantial completion.

As warranty claims are incurred, such costs are deferred within the Costs in excess of billings on uncompleted contracts line item in the Consolidated Balance Sheets, until such time that revenue and cost of revenues are recognized. Subsequent to revenue having been recognized, warranty claims are included within the Other long-term liabilities line item in the Consolidated Balance Sheets and within Cost of revenues line of the Consolidated Statements of Operations. Additional information related to warranty obligations is included in Note 12.

The changes in the carrying amount of the Company’s warranty obligations, which do not include amounts for DSI systems as revenues are deferred until the end of the warranty period, are as follows:

	As of December 31,	
(in thousands)	2014	2013
Beginning balance	$62	$22
Warranties accrued, net	90	45
Warranty claims	—	(5)
Ending balance	$152	$62

In some cases, a letter of credit is obtained and held to cover the period of the warranty that could be used to satisfy the obligation.

Payroll and Benefits

Payroll and benefits costs include direct payroll, personnel related fringe benefits, sales and administrative staff labor costs and stock compensation expense. Payroll and benefits costs exclude direct labor included in Costs of revenues.

Rent and Occupancy

Rent and occupancy costs include rent, insurance, and other occupancy-related expenses.

Legal and Professional

Legal and professional costs include external legal, audit and consulting expenses.

General and Administrative

General and administrative costs include director fees and expenses, bad debt expense impairments and other general costs of conducting business.

Research and Development Costs

Research and development costs are charged to operations in the period incurred.

The Company enters in contracts with the Department of Energy (the "DOE"). These contracts are best-effort-basis contracts and the Company generally includes industry cost-share partners to offset the costs incurred that are anticipated to be in excess of funded amounts from the DOE. The Company accounts for these contracts with the DOE and industry cost-share partners in accordance with accounting guidance whereby the Company recognizes amounts funded by the DOE under research-and-development-cost-sharing arrangements as an offset to the Company's aggregate research and development expense with the Research and development, net line in the Consolidated Statements of Operations.

Asset Retirement Obligations

The Company's asset retirement obligation, or ARO, liability consists of estimated costs to remove equipment and reclaim the land associated with one research and development project. The Company estimates its ARO liability for final reclamation based upon bids obtained from independent third parties and other exit alternatives, escalation for inflation, and then discounted at a credit-adjusted risk-free rate. Changes in estimates could occur due to revisions of estimated costs and changes in timing and performance of the reclamation activities. The ARO liability is included within the Other long-term liabilities line item in the Consolidated Balance Sheets and discussed further in Note 12.

Income Taxes

The Company accounts for income taxes under the asset and liability method which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company recognizes deferred tax assets to the extent that it believes these assets are more likely than not to be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations.

The Company records uncertain tax positions on the basis of a two-step process whereby (1) the Company determines whether it is more-likely-than-not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, the Company recognizes the amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

The Company records interest expense due to the Company's share of CCS equity method earnings for RC facility leases which are treated as installment sales for tax purposes. IRS section 453A requires taxpayers using the installment method to pay an interest charge on the portion of the tax liability that was deferred under the installment method. The Company recognizes IRS section 453A interest ("453A interest") and other interest and penalties related to unrecognized tax benefits in the Interest expense line item in the Consolidated Statements of Operations.

Stock-Based Compensation

Stock-based compensation expense is measured at the grant date and expensed on a straight-line basis over the requisite service period for the entire award. An estimate of forfeitures is applied when calculating compensation expense. These costs are recorded in the Payroll and benefits line item in the accompanying Consolidated Statements of Operations.

Earnings (Loss) Per Share

The Company computes earnings (loss) per share in accordance with FASB ASC 260-10. Under this guidance, unvested restricted stock awards ("RSA's") that contain non-forfeitable rights to dividends or dividend equivalents are deemed to be participating securities and, therefore, are included in computing basic earnings per share pursuant to the

two-class method. The two-class method determines earnings per share for each class of common stock and participating securities according to

dividends or dividend equivalents and their respective participation rights in undistributed earnings (losses). The Company did not declare any dividends during the years ended December 31, 2014, 2013 or 2012.

Under the two-class method, net income (loss) for the period is allocated between common stockholders and the holders of the participating securities, in this case, the weighted-average number of unvested restricted stock awards outstanding during the period. The allocated, undistributed income (loss) for the period is then divided by the weighted-average number of common shares and participating securities outstanding during the period to arrive at basic earnings (loss) per common share or participating security for the period, respectively. Because the Company did not declare any dividends during the periods presented, and because the unvested RSA's possess substantially the same rights to undistributed earnings as common shares outstanding, there is no difference between the calculated basic earnings (loss) per share for common shares and participating securities. Accordingly, and pursuant to generally accepted accounting standards, the Company has elected not to separately present basic or diluted earnings (loss) per share attributable to participating securities on its Consolidated Statements of Operations.

Diluted earnings (loss) per share takes into consideration shares of common stock and unvested RSA's outstanding (computed under basic earnings (loss) per share) and potentially dilutive shares of common stock. Potentially dilutive shares consist of vested, in-the-money outstanding options and contingent PSU's ("Potential dilutive shares"). When there is a loss from continuing operations, all potentially dilutive shares become anti-dilutive and are thus excluded from the calculation of diluted loss per share.

Each PSU represents a contingent right to receive shares of the Company’s common stock, that may range from zero to two times the number of PSU's granted on the award date, should the Company meet certain performance measures over the requisite performance period. The number of potentially dilutive shares related to PSU's is based on the number of shares, if any, that would be issuable at the end of the respective reporting period, assuming that the end of the reporting period was the end of the contingency period applicable to such PSU's. See Note 14 for additional information related to PSU's.

No Potential Dilutive Shares were included in the calculations for the years ended December 31, 2013 or 2012 (Restated) as their inclusion would be anti-dilutive due to the Company’s net loss per share for those periods. On March 14, 2014, the Company completed a two-for-one stock split of the Company’s common stock, which was effected in the form of a common stock dividend. All periods reflect the per-share impact of the two-for-one stock split.

The following table sets forth the calculations of basic and diluted earnings (losses) per common share:

	Years Ended December 31,		
(in thousands, except per share amounts)	2014	2013	2012 (Restated)
Net income (loss)	$1,387	$(15,987)	$(13,129)
Less: Undistributed income (loss) allocated to participating securities	(18)	220	167
Income (loss) attributable to common stockholders	$1,369	$(15,767)	$(12,962)
Basic weighted-average number of common shares outstanding	21,554	20,103	19,829
Add: dilutive effect of equity instruments	525	—	—
Diluted weighted-average number of common shares outstanding	22,079	20,103	19,829
Earnings (loss) per share - basic	$0.06	$(0.78)	$(0.65)
Earnings (loss) per share - diluted	$0.06	$(0.78)	$(0.65)

The table below presents the number of shares that were excluded from the calculation of diluted loss per share because their inclusion would have been anti-dilutive to the calculation:

	Years Ended December 31,		
(share data in thousands)	2014	2013	2012 (Restated)
Stock options	—	249	211
Restricted stock awards	—	250	225

Performance share units	—	33	—
Total shares excluded from diluted shares outstanding	—	532	436

Use of Estimates

The preparation of the Company’s consolidated financial statements in conformity with generally accepted accounting principles requires the Company’s management to make estimates and assumptions that affect the amounts reported in these financial statements and accompanying notes. Actual results could differ from those estimates. The Company makes significant assumptions concerning:

- Revenue recognition, warranty estimates and performance guarantee accruals related to the Company's extended equipment contracts;
- the impairment, or lack thereof, of the remaining realizability of, its long-lived assets including equity method investments;
- stock compensation costs related to performance share unit awards;
- estimated future royalty obligations associated with our settlement and royalty indemnification accrual and other legal accruals; and
- the deferred tax assets expected to be realized in future periods and uncertain tax positions.

Reclassifications

Certain balances have been reclassified from prior years to conform to current year presentation.

New Accounting Guidance

In April 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-08, Discontinued Operations (Topic 360): Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity ("ASU 2014-08"). This amendment raises the threshold for a disposal to qualify as a discontinued operation and requires new disclosures of both discontinued operations and certain other disposals that do not meet the definition of a discontinued operation. ASU 2014-08 is effective prospectively for fiscal years beginning after December 15, 2014 and for interim periods therein. During the third quarter of 2015, the Company undertook restructuring actions that did not qualify as discontinued operations.

In May 2014, the FASB issued ASU No. 2014-09, Revenue Recognition (Topic 606): Revenue from Contracts with Customers ("ASU 2014-09"). This new standard provides accounting guidance for all revenue arising from contracts with customers and affects all entities that enter into contracts to provide goods or services to their customers (unless the contracts are in the scope of other US GAAP requirements). The guidance also provides a model for the measurement and recognition of gains and losses on the sale of certain nonfinancial assets, such as property and equipment, including real estate. In August 2015, the FASB issued ASU 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which defers the effective date of the guidance in ASU 2014-09 by one year. ASU 2014-09 is now effective for fiscal years, and interim reporting periods within those years, beginning after December 15, 2017. Early application is permitted for annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. The standard permits the use of either the retrospective or cumulative effect transition method. The Company has not yet selected a transition method nor has it determined the effect of the standard on its consolidated financial statements and related disclosures.

In August 2014, the FASB issued ASU No. 2014-15, Presentation of Financial Statements - Going Concern (Topic 205-40), Disclosure of Uncertainties about an Entities Ability to Continue as a Going Concern that requires management to evaluate whether there are conditions or events that raise substantial doubt about an entity’s ability to continue as a going concern within one year after the date that the entity’s financial statements are issued, or within one year after the date the entity’s financial statements are available to be issued, and to provide disclosures when certain criteria are met. This guidance is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The Company is currently evaluating the provisions of this guidance and assessing its impact on the Company’s financial statements and disclosures.

In January 2015, the FASB issued ASU No. 2015-01, Income Statement - Extraordinary and Unusual Items (Topic 225-20), Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items that simplifies income statement presentation by eliminating extraordinary items from GAAP. This guidance is to be applied either prospectively or retrospectively and is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2015. Early application is permitted provided the guidance is applied from the beginning of the annual year of adoption. The Company has adopted the guidance as of January 1, 2014 and the adoption of this standard did not have an impact on the Company's consolidated financial position or results of operations.

In February 2015, the FASB issued ASU No. 2015-02, Consolidation (Topic 810), Amendments to the Consolidation Analysis that meant to clarify the consolidation reporting guidance in GAAP. This guidance is to be applied using a retrospective method

or a modified retrospective method, as outlined in the guidance, and is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2015. Early application is permitted. The Company is currently evaluating this guidance but does not believe the adoption of this standard will impact the Company's financial statements and disclosures.

In April 2015, the FASB issued ASU 2015-03, Interest – Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which requires an entity to present debt issuance costs related to a debt liability as a direct deduction from the debt liability rather than as an asset. ASU 2015-03 is effective retrospectively for fiscal years, and interim reporting periods within those years, beginning after December 15, 2015. The adoption of this standard is expected to impact the presentation of certain financial statement line items within the Company’s consolidated balance sheets and related disclosures, but will not affect the Company’s consolidated results of operations.

In September 2015, the FASB issued ASU 2015-16, Business Combinations (Topic 805): Simplifying the Accounting Measurement-Period Adjustments, which eliminates the requirement for an entity to retrospectively adjust the financial statements for measurement-period adjustments that occur in periods after a business combination is completed. ASU 2015-16 is effective prospectively for fiscal years, and interim reporting periods within those years, beginning after December 15, 2015. The adoption of this standard will not have an impact on the Company's financial position and results of operations.

In November 2015, the FASB issued ASU 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, to simplify the presentation of deferred income taxes. The amendments in ASU 2015-17 require that deferred tax liabilities and assets be classified as non-current in a classified statement of financial position. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by the amendments in the update. ASU 2015-17 is effective for fiscal years beginning after December 15, 2016, and interim periods within those years, and may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. The adoption of this standard will not have an impact on the Company's financial position.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities. This new standard provides guidance on how entities measure certain equity investments and present changes in the fair value. This standard requires that entities measure certain equity investments that do not result in consolidation and are not accounted for under the equity method at fair value and recognize any changes in fair value in net income. ASU 2016-01 is effective for fiscal years beginning after December 31, 2017. The Company is currently evaluating the provisions of this guidance and assessing its impact on the Company's financial statements and disclosures.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which requires lesses to recognize a right of use asset and related lease liability for those leases classified as operating leases at the commencement date and have lease terms of more than 12 months. This topic retains the distinction between finance leases and operating leases. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, and interim periods within those years, and must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The Company is currently evaluating the provisions of this guidance and assessing its impact on the Company's financial statements and disclosures.

Note 2 - Restatement

In August 2014, subsequent to filing the Company’s Annual Reports on Form 10-K for the fiscal year ended December 31, 2012 and Quarterly Reports on Form 10-Q for 2013, but prior to the filing of the Company's Form 10-K for 2013, the Company determined that certain material errors were included in the Company’s previously reported financial statements.

Restatement Adjustments

Based upon the Company's internal reviews of various accounting transactions and matters, and the associated re-audits of prior year financial statements, the following contains a summary of the errors that have been corrected and identifies certain accounts and transactions that have been restated.

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Deconsolidation of CCS - The Company has historically consolidated the financial results of CCS with the Company's financial statements, consistent with the consolidation guidance in effect at the time of formation of CCS in 2006. Prior to May 2011, the Company held a 50% equity interest in CCS; and subsequent to that date, the Company's equity interest was reduced to 42.5% via a partial sale of its equity interests to GSFS Investments I Corp. ("GSFS"). Financial Accounting Standard ("FAS") 167 became effective on January 1, 2010 (subsequently codified to Accounting Standard Codification ("ASC") 810, Consolidation) and changed the accounting guidance for entities such as CCS that, under the applicable guidance, are defined as VIE's. In November 2014, the Company determined that it did not have (and from the period of January 2010 through November 2014 did not have) the power to direct the activities that most significantly impact the economic performance of CCS; therefore, the Company was not the primary beneficiary under ASC 810, and it was not appropriate for the Company to consolidate the financial results of CCS, as of January 1, 2010 and thereafter. As a result, the Company has deconsolidated CCS and made other

corrections required to properly reflect CCS transactions under the equity method of accounting (see discussion below). The cumulative effect of the deconsolidation adjustments decreased the Company's consolidated accumulated deficit by $0.9 million and increased additional paid in capital ("APIC") by $30.0 million as of December 31, 2011. See additional information related to CCS in Note 8.

- Equity method of accounting - Due to the determination that CCS should be accounted for under the equity method of accounting, certain transactions that were previously eliminated in the Company’s consolidated financial statements require accounting recognition under the equity method of accounting. Additionally the Company identified other adjustments unrelated to the deconsolidation determination including distributions from CCS being classified as other income rather than a reduction of the equity method investment and accretion on a preferred equity interest at CCS not being recognized. The cumulative effect of all such adjustments totaled $12.4 million at December 31, 2011 and are reflected as a decrease to the 2012 opening balance of the accumulated deficit in the Consolidated Financial Statements. As discussed above, the Company deconsolidated CCS and recognized a $30.0 million gain on a partial sale of its equity interests to a third party. The cumulative effect at December 31, 2011 of the recognition of the gain decreased APIC by $19.6 million, comprised of the $30.0 million gain, offset by the reversal of a previously recognized deferred tax benefit of $10.4 million. In addition, these errors resulted in an increase to the previously reported December 31, 2012 net loss of $1.4 million.
- Revenue recognition - The Company historically recognized equipment sales revenue related to certain long term equipment construction projects ("equipment construction projects") under the percentage of completion method using engineering labor hours. During 2014 and 2015, the Company determined that, under applicable accounting guidance, any percentage of completion method that purports to use labor hours should also include the labor hour information for significant subcontractors. The Company determined that labor hour information for significant subcontractors did not exist for the restatement period related to its ACI equipment construction projects; further the Company did not have sufficient information or controls related to its DSI system construction projects during the restatement period that would allow it to properly capture labor hours for such systems. The Company also determined that it did not have sufficient information and controls to account for either ACI or DSI equipment construction contracts using a cost-to-cost percentage of completion method, based on costs incurred to date compared with total estimated contract costs. Therefore, the Company has corrected the accounting for all such equipment construction contracts by recognizing the revenue from such contracts under the completed contract method. The Company also previously recognized cost reimbursements from the DOE as revenue. The Company determined that it should have recognized these reimbursements as contra expense within the Research and development line item in the Consolidated Statements of Operations. These DOE revenue and cost reimbursement adjustments did not impact net income. Additionally, the Company identified and corrected elimination entries regarding the consolidation of the financial results of BCSI, LLC within the Company’s financial statements for the first three quarters of 2013, which previously did not properly eliminate revenue and expenses for combined contracts, fulfilled by both BCSI, LLC and ADA-ES, Inc., wholly-owned subsidiaries of the Company. The cumulative effect of these adjustments totaled $3.6 million at December 31, 2011 and were reflected as an increase to the 2012 opening balance of the accumulated deficit. In addition, these errors resulted in a decrease to the previously reported December 31, 2012 net loss of $0.8 million.
- Settlement and royalty indemnity accounting - During 2011 the Company entered into settlement agreements with various third parties related to litigation regarding one of the Company’s equity method investments, whereby the Company paid a lump-sum payment totaling $33 million in the third quarter of 2011. In addition, the Company agreed to pay an additional $7.5 million over a three-year period with payments commencing in the second quarter of 2012, payable in three installments without interest, of $2.5 million. The Company also relinquished its investment in the equity method entity and was also required to pay additional damages in the form of future royalty payments related to certain future revenues generated from the equity method investment through the second quarter of 2018 (the “Royalty Award”). The Company recognized the expenses related to the lump-sum payment of $33 million, the additional $7.5 million payment, and the Royalty Award expenses related to the years ended December 31, 2010 and 2011 as previously reported in its Form 10-K for the year ended December 31, 2011. Subsequent to that date, the Company recognized expenses related to the Royalty Award payments as they were incurred. During 2015, the Company determined that it should have recognized the entire liability and related expenses for the estimated Royalty

Award during the year ended December 31, 2011 as the loss contingency met the criteria to be recorded because the Royalty Award was both known and estimable. The cumulative effect of this adjustment totaled $25.9 million at December 31, 2011 and was reflected as an increase to the 2012 opening balance of the accumulated deficit in our Consolidated Financial Statements in Item 8 of this Form 10-K. Additionally, subsequent periods have been adjusted to exclude any Royalty Award expense that was originally recorded in such periods which resulted in a decrease to the previously reported December 31, 2012 net loss of $2.3 million. See Note 15 for additional details related to these matters.

- Other adjustments - The Company identified other adjustments related to the Company's prior accounting including, stock based compensation, warranty reserves, interest liabilities under Internal Revenue Code 453A and various other

adjustments. The cumulative effect of these adjustments totaled $0.2 million at December 31, 2011 and were reflected as an increase to the 2012 opening balance of accumulated deficit. In addition, these errors, along with errors related to the Company's 2012 acquisition discussed in Note 9, property and equipment, intangible assets and various other adjustments, resulted in an increase to the previously reported December 31, 2012 net loss of $1.8 million. The following table presents the components included within the other adjustments category, and the related cumulative effect of the prior period adjustments to stockholders' deficit at December 31, 2011 (Restated):

	Common Stock			
(in thousands)	Shares	Amount	Additional Paid-in Capital Impact	Accumulated Deficit Impact
Stock based compensation	—	$—	$290	$(290)
Warranty reserves	—	—	—	(526)
453A interest	—	—	—	698
Other, net	—	—	(100)	(104)
Total	—	$—	$190	$(222)

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The accompanying financial statements for 2012 have been restated to reflect the corrections. The previously reported December 31, 2011 balances have also been adjusted to reflect the two-for-one stock split of the Company's common stock, effective as of March 14, 2014. The previously reported December 31, 2011 balances have also been adjusted to reflect the reorganization of the Company that occurred, effective July 1, 2013, which resulted in Advanced Emissions Solutions, Inc., a Delaware company incorporated in 2011, replacing ADA as the publicly-held corporation and ADA becoming a wholly-owned subsidiary of Advanced Emissions Solutions, Inc. Due to Delaware law, the Company was then required to have par value assigned to its common stock whereas, as a Colorado corporation, there was no par value assigned to its common stock.
The accumulated deficit at January 1, 2012 was increased by $16.5 million as a result of adjustments to the categories described above in years prior to 2012. The following table details the amounts of the adjustment related to the respective categories:

	Common Stock				
(in thousands, except share data)	Shares	Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances, December 31, 2011, as previously reported	19,992,288	$20	$63,165	$ (66,694)	$ (3,509)
Adjustments:					
Deconsolidation	—	—	30,000	930	30,930
Equity method accounting	—	—	(19,600)	12,366	(7,234)
Revenue recognition	—	—	—	(3,648)	(3,648)
Settlement and royalty indemnity	—	—	—	(25,891)	(25,891)
Other	—	—	190	(222)	(32)
Total adjustments	—	—	10,590	(16,465)	(5,875)
Balances, December 31, 2011 (Restated)	19,992,288	$20	$73,755	$ (83,159)	$ (9,384)

In connection with the deconsolidation adjustments, the Company also eliminated temporary equity and noncontrolling interest balances related to CCS of $60.0 million and $25.9 million, respectively, that are not shown in the above table.

The following is a description of the restatement adjustments and effect of the errors recorded by the Company on the previously issued 2012 Consolidated Statement of Operations. As previously reported amounts represent amounts reported in the Company's Form 10-K for the year ended December 31, 2012, adjusted to conform to current year presentation, as applicable.

A. Deconsolidation - These are adjustments necessary to properly reflect the Company's investment in CCS as an equity method investment.

B. Revenue and related cost of revenue - The total decrease to revenue of $4.0 million consists of a decrease of $1.8 million to account for equipment construction projects under the completed contract method (as discussed above) and a decrease of $2.9 million for contracts with the DOE and other parties that should be accounted for as cost share reimbursements, with all reimbursements and expenses being recorded in research and development expense rather than revenue and cost of revenue, as discussed above. These decreases in revenue were offset by increases to consulting service revenue of $0.7 million to correct for the timing of revenue recognition. Individual revenue line items were also impacted by reclassifications between equipment revenue and consulting revenue. The total decrease to cost of revenue of $4.4 million consists of a decrease of $2.0 million to account for equipment construction projects under the completed contract method and a $0.1 million decrease related to warranties and a decrease of $2.4 million of costs associated with the DOE contracts, now included within research and development expense. The Company previously recorded a portion of the costs incurred on these contracts in cost of revenue and the balance in research and development expense. These decreases were offset by other adjustments, which increased cost of revenue by $0.1 million. Individual costs of revenue line items were also impacted by reclassifications between equipment cost of revenue and consulting cost of revenue.

C. Earnings (loss) in equity method investments and royalty earnings from equity method investment - CCS's equity structure includes Class B units that provide the holder with certain preferred returns on its investment. Historically, the Company did not properly account for the accretion of these returns and, as a result, the calculation of CCS's income attributable to the Company was overstated by $5.3 million. This overstatement was partially offset by the recognition of equity earnings of $3.9 million associated with cash distributions from CCS in excess of the Company's investment balance.

D. Litigation settlement and royalty indemnity expense - These represent adjustments necessary to properly account for the Royalty Award, discussed above. The effect of this adjustment was an increase to litigation settlement expense of $25.9 million in 2011 and a reduction of $2.3 million of royalty expense in 2012.

E. Other - The Company identified other adjustments related to it's prior accounting. The aggregate impact of these items is a decrease to the loss before income taxes of $1.8 million (inclusive of a $0.1 million increase related to warranties discussed above), as discussed below:

1. Adjustments impacting the Payroll and benefits line item resulted in an increase to compensation expense of $1.0 million. The errors consist of $0.2 million for the failure to recognize certain restricted stock grants as well as using the incorrect vesting period for other grants; $0.4 million to recognize the entire incentive bonus obligation in the period earned; $0.2 million for bonus payments that the Company originally recorded as a receivable assuming these payments were to be reimbursed by CCS; and an aggregate $0.2 million of various other error corrections.
2. Adjustments related to the Company's 2012 acquisition of the assets of two related, privately held companies by BCSI, LLC, a wholly-owned subsidiary of the Company, resulted in an increase to Legal and professional fees of $0.2 million.
3. Adjustments impacting the Depreciation and amortization expense line item resulted in increased expense of $0.2 million.
4. As the Company previously consolidated CCS, royalty earnings were eliminated. Upon deconsolidation, the Company recognized these earnings of $1.4 million and reclassified the amounts from Other income (expense) to Royalties, related party.
5. Adjustments increased interest expense due to 453A interest of $0.2 million offset by interest expense previously incorrectly recorded.
6. Other adjustments resulted in a net increase to the previously recognized net loss of $0.3 million.

F. The impact of correcting the classification of certain previously reported cash and cash equivalent balances to investment securities and investment securities, restricted balances, as well as certain receivable, net balances to related party receivables, net.

Consolidated Statement of Operations

	December 31, 2012					
(in thousands, except per share data)	As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
Revenues:						
Equipment sales	$10,144	$ —	$ 10,144	$(2,560)	B	$7,584
Consulting services	7,107	2,386	9,493	(1,476)	B	8,017
Chemicals and other	195,272	(194,557)	715	—		715
Total revenues	212,523	(192,171)	20,352	(4,036)		16,316
Expenses:						
Equipment sales cost of revenue	8,400	—	8,400	(2,860)	B, E	5,540
Consulting services cost of revenue	4,525	2,106	6,631	(1,506)	B	5,125
Royalties cost of revenue	—	—	—	—		—
Other cost of revenue	179,620	(179,206)	414	—		414
Payroll and benefits	10,437	—	10,437	1,026	B, E1	11,463
Rent and occupancy	1,720	—	1,720	(128)	B, E6	1,592
Legal and professional fees	2,492	—	2,492	225	E2	2,717
General and administrative	7,482	(4,391)	3,091	68	E6	3,159
Research and development	987	(311)	676	(424)	B, E6	252
Depreciation and amortization	5,288	(4,554)	734	169	B, E2, E3	903
Total operating expenses	220,951	(186,356)	34,595	(3,430)		31,165
Operating income (loss)	(8,428)	(5,815)	(14,243)	(606)		(14,849)
Other income (expenses), net						
Earnings (loss) from equity method investments	760	1,438	2,198	(1,385)	C	813
Royalties, related party	—	—	—	1,446	E4	1,446
Interest income	299	—	299	9	E6	308
Interest expense	(1,461)	835	(626)	(172)	E5	(798)
Litigation settlement and royalty indemnity expense, net	(2,292)	—	(2,292)	2,292	D	—
Other income (expense)	(3)	1,636	1,633	(1,668)	C, E4, E6	(35)
Total other income (expense), net	(2,697)	3,909	1,212	522		1,734
Loss before income tax expense	(11,125)	(1,906)	(13,031)	(84)		(13,115)
Income tax expense	—	—	—	14	E6	14
Net loss	(11,125)	(1,906)	(13,031)	(98)		(13,129)
Loss attributable to non-controlling interest	1,946	(1,946)	—	—		—
Net loss attributable to ADES	$(13,071)	$ 40	$ (13,031)	$(98)		$(13,129)
Loss per common share – basic and diluted, attributable to ADES	$(0.65)					$(0.66)
Weighted-average number of common shares outstanding - basic	20,026					19,829
Weighted-average number of common shares outstanding - diluted	20,026					19,829

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The following table incorporates the impact of the above adjustments on the previously issued 2012 consolidated statement of cash flows. As previously reported represents amounts reported in the Company's Form 10-K for the year ended December 31, 2012, adjusted to conform to current year presentation, as applicable.

Consolidated Statement of Cash Flows

	Year ended December 31, 2012					
(in thousands)	As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement and Reclassification Adjustments		As Restated
Cash Flows from Operating Activities						
Net income (loss)	$(13,071)	$ 40	$ (13,031)	$ (98)	B, C, D, E	$(13,129)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:						
Depreciation and amortization	5,263	(4,529)	734	169	E3	903
Share-based compensation expense	541	—	541	108	E1	649
Equity in (income) loss from equity method investments	(760)	(1,438)	(2,198)	1,385	C	(813)
Non-controlling interest in income from subsidiaries	1,946	(1,946)	—	—		—
Other non-cash items	45	—	45	20	E6	65
Changes in operating assets and liabilities, net of effects of acquired businesses:						
Receivables, net	(5,105)	2,816	(2,289)	(1,930)	B, F	(4,219)
Related party receivables, net	—	3,158	3,158	(50)	C	3,108
Prepaid expenses and other assets	(1,358)	(164)	(1,522)	830	B, E1, E2, E6	(692)
Costs incurred on uncompleted contracts	—	—	—	(1,334)	B	(1,334)
Other long-term assets	(3)	(60)	(63)	(422)	B, C, E2, E6	(485)
Accounts payable	1,638	(547)	1,091	(879)	B, E6	212
Accrued payroll and related liabilities	(5)	—	(5)	872	E1	867
Other current liabilities	969	(1,058)	(89)	(668)	B, E2	(757)
Deferred revenue	4,200	(4,200)	—	—		—
Billings on uncompleted contracts	3,557	—	3,557	628	B	4,185
Advance deposit, related party	—	(508)	(508)	—		(508)
Other long-term liabilities	415	(28)	387	631	E3, E6	1,018
Settlement and royalty indemnification obligation	(3,230)	—	(3,230)	(2,292)	D	(5,522)
	(4,958)	(8,464)	(13,422)	(3,030)		(16,452)

Net cash used in operating activities									
Cash Flows from Investing Activities									
Purchase of investment in securities	—		—	—		(105	)	F	(105	)
Maturity of investment securities	(1,133	)	—	(1,133	)	5,538		F	4,405	
Purchase of investment in securities, restricted	—		—	—		(4,055	)	F	(4,055	)
Maturity of investment securities, restricted	—		—	—		2,290		F	2,290	
Acquisition of property and equipment	(10,846	)	7,833	(3,013	)	(866	)	E3, E6	(3,879	)
Proceeds from sale of property and equipment	35		—	35		4		E6	39	
Acquisition of business	(2,000	)	—	(2,000	)	400		E2	(1,600	)
Purchase, contributions and advances to equity method investees	—		—	—		(500	)	C	(500	)
Distributions from equity method investees, return of investment	—		—	—		53		C	53	

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Consolidated Statement of Cash Flows						
Net cash provided by (used in) investing activities	(13,944)	7,833	(6,111)	2,759		(3,352)
Cash Flows from Financing Activities						
Net borrowing (repayments) under line of credit	(11,497)	11,497	—	—		—
Repayments of notes payable	(136)	—	(136)	136	E2	—
Stock issuance and registration costs	(22)	—	(22)	—		(22)
Proceeds received upon exercise of stock options	21	—	21	—		21
Contributions and advances to equity method investees	(500)	—	(500)	500	C	—
Distributions to non-controlling interest	(106)	106	—	—		—
Net cash provided by (used in) financing activities	(12,240)	11,603	(637)	636		(1)
Change in cash and cash equivalents	(31,142)	10,972	(20,170)	365		(19,805)
Cash and cash equivalents at beginning of period	40,879	(8,296)	32,583	(5,037)		27,546
Cash and cash equivalents at end of period	$9,737	$2,676	$12,413	$(4,672)		$7,741

Note 3 - Restructuring

The Company recorded restructuring charges during 2014 primarily related to a reduction in force, the departure of executive officers and management's alignment of the business with strategic objectives. These charges were related to severance agreements with departing employees and executives, including non-cash charges related to the acceleration of vesting of certain stock awards.

A summary of the net pretax benefits (charges), incurred by segment is as follows:

		Pretax Charge					
(in thousands)	Approximate Number of Employees	Refined Coal	Emissions Control - Engineering Technology and Services	Emissions Control - Manufacturing	Research & Development	All Other and Corporate	Total
Year ended December 31, 2014							
Restructuring charges	29	$—	$1,294	$ —	$—	$2,209	$3,503

The following table summarizes the Company's utilization of restructuring accruals for the year ended December 31, 2014:

(in thousands)	Employee Severance
Beginning accrual as of January 1, 2014	$29
Expense provision (1)	3,503
Cash payments and other (1)	(1,842)
Change in estimates	—
Accrual as of December 31, 2014	$1,690

(1) Included within the Expense provision and Cash payments and other line items in the above table is stock compensation expense of $1.0 million resulting from the accelerated vesting of modified equity-based compensation awards for certain terminated employees.

Restructuring activity during the year ended December 31, 2013 related to one employee within the All Other and Corporate category.

Restructuring accruals are included within the Accrued payroll and related liabilities line item in the Consolidated Balance Sheets. Restructuring expenses are included within the Payroll and benefits line item in the Consolidated Statements of Operations.

Subsequent to December 31, 2014, the Company recorded restructuring charges in connection with a reduction in force, the departure of executive officers and management's further alignment of the business with strategic objectives which will impact all segments of the Company's business. These charges related to severance arrangements with departing employees and executives, including non-cash charges related to the acceleration of vesting of certain stock awards, as well as to the closing of the BCSI facilities and the termination of the operations of a foreign subsidiary that was involved in the development of certain data analytics and monitoring products. Furthermore, during the fourth quarter of 2015, the Company closed its fabrication facility in McKeesport, Pennsylvania and will record restructuring charges related thereto.

Note 4 - Property and Equipment

The carrying basis and accumulated depreciation of property and equipment at December 31, 2014 and 2013, are:

(in thousands)	Life in Years	As of December 31, 2014	2013
Machinery and equipment	3-10	$7,194	$6,734
Leasehold improvements	3-7	2,198	2,048
Furniture and fixtures	3-7	1,340	918
		10,732	9,700
Less accumulated depreciation and amortization		(5,924)	(3,901)
Total property and equipment, net		$4,808	$5,799

Depreciation expense for the years ended December 31, 2014, 2013 and December 31, 2012 (Restated) was $1.8 million, $1.6 million and $0.9 million, respectively.

As discussed in Note 3, as part of a broader strategic restructuring of the Company's business, the Company's management approved an action to wind down the manufacturing operations of BCSI, LLC, in order to focus the Company's efforts within the DSI market on engineering. During the fourth quarter of 2015, the Company classified certain assets used in the BCSI, LLC manufacturing operations as held for sale. The carrying value of the assets classified as held for sale was $1.0 million and the fair value, less costs to sell were $0.9 million. The Company recorded a fair value adjustment of $0.1 million to value these assets at the lower of cost or fair value less selling costs. The Company sold the assets classified as held for sale during the fourth quarter of 2015.

Note 5 - Investments

The costs, gross unrealized gains and losses, and fair values of the Company's investment securities as of December 31, 2014 and 2013, respectively, were as follows:

	As of December 31, 2014			
(in thousands)	Cost (a)	Gross Unrealized Gains	Gross Unrealized Losses	Fair Values
Certificates of deposit, restricted	$336	$—	$—	$336
Total available-for-sale securities	336	—	—	336
Cost method investment	2,776	—	—	2,776
Total	$3,112	$—	$—	$3,112

	As of December 31, 2013			
(in thousands)	Cost (a)	Gross Unrealized Gains	Gross Unrealized Losses	Fair Values
Certificates of deposit	$105	$—	$—	$105
Certificates of deposit, restricted	738	—	—	738
Total available-for-sale securities	843	—	—	843
Total	$843	$—	$—	$843

(a) Represents cost for securities

The following table presents the maturity information for the Company's investments in securities as of December 31, 2014:

(in thousands)	Investment Securities, restricted
Due within one year	$—
Due after one year through five years	336
Due after five years through 10 years	—
Due after 10 years	—
Total	$336

In November 2014, the Company acquired an 8% ownership interest in the common stock of Highview Enterprises Limited ("Highview"), a London, England based developmental stage company specializing in power storage, for $2.8 million in cash. The Company evaluated the investment and determined that it should account for the investment under the cost method. This investment is evaluated for impairment upon an indicator of impairment such as an event or change in circumstances that may have a significant adverse effect on the fair value of the investment. As of December 31, 2014, there were no indicators of impairment. When there are no indicators of impairment present, the Company estimates the fair value for the Highview investment only if it is practical to do so. As of December 31, 2014, the Company estimated that the fair value of the cost method investment approximated the November 2014 purchase price due to the proximity of the purchase date to December 31, 2014 and no indicators of impairment were identified.

Note 6 - Costs and Billings on Uncompleted Contracts

Costs incurred on uncompleted contracts represent the gross costs as of the balance sheet dates. Billings on uncompleted contracts represent the gross billings as of the balance sheet dates. Costs and billings are netted on an individual contract basis, with contracts in a net cost position aggregated and presented as Costs in excess of billings on uncompleted contracts in the accompanying Consolidated Balance Sheet, and contracts in a net billing position aggregated and presented as Billings in excess of costs on uncompleted contracts in the accompanying Consolidated Balance Sheets. The below table shows the components of these items.

	As of December 31,	
(in thousands)	2014	2013
Costs incurred on uncompleted contracts (gross)	$79,108	$22,282
Billings on uncompleted contracts (gross)	(95,473)	(39,852)
	$(16,365)	$(17,570)
Included in the accompanying balance sheets under the following captions:		
Costs in excess of billings on uncompleted contracts	$6,153	$2,700
Billings in excess of costs on uncompleted contracts	(22,518)	(20,269)
	$(16,365)	$(17,569)

Loss contract accruals of $2.9 million and $4.8 million as of December 31, 2014 and 2013, respectively, are included in Other current liabilities line item in the Consolidated Balance Sheets. During the years ended December 31, 2014, 2013 and 2012, the Company recorded loss contract provisions of $0.3 million, $4.8 million and $0.1 million, respectively. Loss contract provisions are included within the Equipment sales cost of revenue, exclusive of depreciation and amortization line item in the Consolidated Statements of Operations.

Note 7 - Research and Development and Government and Industry Funded Contracts
The Company performs research and development activities related to emerging technologies, such as those aimed at the separation, capture and control of CO_2 emissions related to power generation, oil & gas production technologies and energy storage applications through internal funds, and contracts supported by the DOE and industry participants. The contracts with the DOE can take the form of grants or cooperative agreements and are considered financial assistance awards. The deliverables required by the DOE agreements include various technical and financial reports that the Company submits on a prescribed schedule. The agreements require the Company to perform the negotiated scope of work in agreed phases, which includes testing and demonstration of technologies.
The Company has participated in several contracts awarded by the DOE. The Company typically invoices the DOE and industry cost-share partners monthly for labor and expenditures plus estimated overhead factors, less any cost share amounts. The contracts under which the Company has performed are subject to audit and future appropriation of funds by Congress. The Company has not experienced adverse adjustments as a result of government audits. However, the government audits for years ended 2010 through 2014 have not yet been finalized. The following table shows the impact to Research and development expense amounts recognized in the Consolidated Statement of Operations:

	Years Ended December 31,		
(in thousands)	2014	2013	December 31, 2012 (Restated)
Research and development expense	$3,554	$13,054	$3,133
Less:			
DOE funding	1,756	9,400	2,457
Industry cost-share funding	277	417	424
Net research and development expense	$1,521	$3,237	$252

Note 8 - Equity Method Investments
Clean Coal Solutions
In 2006, ADA established CCS to commercialize its patented RC technologies that reduce emissions of both NO_X and mercury from certain coals in cyclone boilers and sold a 50% interest in CCS to NexGen Refined Coal, LLC ("NexGen"), which was not affiliated with the Company. CCS’s function is to supply technology, equipment and technical services to cyclone-fired and other boiler users, but CCS’s primary purpose is to put into operation facilities that produce RC that qualifies for tax credits available under Section 45 of the Internal Revenue Code (“Section 45 tax credits”).
In May 2011, ADA and NexGen each sold 7.9% of their respective interests (15.8% total interest) in CCS to GSFS Investments I Corp. (“GSFS”), an affiliate of The Goldman Sachs Group, Inc., for $60 million in cash. CCS immediately distributed the $60 million cash received from GSFS to ADA and NexGen. The Company recognized a gain related to the dilution of the Company's ownership interest in CCS from 50% to 42.1% resulting from the issuance of Class B units by CCS to GSFS. GSFS has certain preferences over ADA and NexGen as to liquidation and profit distribution, including a guaranteed 15% annual return on GSFS unrecovered investment balance, which is calculated as the original GSFS investment, plus a 15% annual return thereon, less any distributions, including the allocation of Section 45 tax credits. Additionally, on the 10 year anniversary of the date the last RC facility owned by CCS or one of its subsidiaries is placed into service, but no later than December 31, 2021, if the GSFS's unrecovered investment balance has not been reduced to zero, GSFS may require CCS to redeem its Class B units for an amount equal to the then unrecovered investment balance, payable within 180 days of the notice of redemption. GSFS has no further capital call requirements and does not have a voting interest but does have approval rights over certain corporate transactions.
In September 2011, ADA, NexGen, and GSFS entered into a First Amendment to the Amended and Restated Operating Agreement ("CCS Operating Agreement") pursuant to which ADA and NexGen each transferred their member interests in each of CCS’s subsidiaries back to CCS. As a result of these transactions, ADA’s interest in CCS’s net profits and losses was adjusted to 42.5%. This restructuring of ownership interests did not change the financial relationships of the parties and ADA still maintains a 50% voting interest in CCS and no gain or loss was recognized.

In July 2012, ADA, NexGen and GSFS entered into the Second Amendment to the CCS Operating Agreement which, among other things, expanded CCS's board of managers to allow for the appointment of an additional voting manager not directly representative of any of the members. The additional manager must be appointed and removed with the affirmative vote, consisting of five of the seven members of the CCS board of managers.

The Operating Agreement requires NexGen and ADA to each pay its share of the costs of operating CCS and specifies certain duties that both parties are obligated to perform. Pursuant to an Exclusive Right to Lease Agreement, CCS granted to GSFS the exclusive right to lease RC facilities capable of producing up to approximately 12 million tons of RC (the "Target Tons") per year on pre-established terms. CCS has entered into lease transactions with GSFS that in the aggregate meet or exceed the Target Tons and as a result the related obligations under the Exclusive Right to Lease Agreement have been satisfied.

As of December 31, 2014 and 2013, the Company's ownership in CCS was 42.5% and 42.5%, respectively. CCS had been determined to be a VIE, however, the Company, in 2014, determined that, effective January 1, 2010 (the effective date of new accounting guidance related to VIE's) it did not have the power to direct the activities that most significantly impact the variable interest entity's economic performance and has therefore accounted for the investment under the equity method of accounting. The Company determined the voting partners of CCS have identical voting rights, equity control interests and board control interests, and therefore, concluded that the power to direct the activities that most significantly impact the variable interest entity's economic performance were shared. Prior to this determination, the Company had consolidated the accounts of CCS, thereby resulting in the restatement adjustments described as "deconsolidation adjustments" in Note 2.

As shown in the table below, the Company's carrying value in CCS has been reduced to zero as of December 31, 2014 and December 31, 2013, as cumulative cash distributions have exceeded the Company's cumulative earnings in CCS. If CCS subsequently reports income, the Company will not record its share of such income until it equals the amount of its share of income previously recognized due to cash being distributed, unless future cash distributions continue to exceed cumulative earnings.

As such, equity income or loss reported on the Company's income statement may differ from a mathematical calculation of net income or loss attributable to our equity interest based upon the factor of our equity interest and the net income or loss attributable to equity owners as shown on CCS's income statements. Likewise, distributions from equity method investees are reported on the Company's Consolidated Statements of Cash Flows as "return on investment" within Operating cash flows until such time as the carrying value in an equity method investee company is reduced to zero; thereafter, such distributions are reported as "distributions in excess of cumulative earnings" within Investing cash flows.

The following tables summarize the assets, liabilities and results of operations of CCS:

	As of December 31,	
(in thousands)	2014	2013
Current assets	$28,701	$24,202
Non-current assets	$52,983	$41,791
Current liabilities	$70,894	$38,339
Non-current liabilities	$22,770	$16,763
Redeemable Class B equity	$45,522	$63,071
Members deficit attributable to Class A members	$(63,027)	$(52,180)
Noncontrolling interests	$5,525	$—

	Years Ended December 31,		
(in thousands)	2014	2013	2012
Gross margin	$89,099	$50,941	$20,248
Operating expenses	21,502	17,462	15,828
Income from operations	67,597	33,479	4,420
Other expenses	(1,830)	(527)	(1,036)
Redeemable Class B preferred return	(8,707)	(10,189)	(10,520)
Loss attributable to noncontrolling interest	11,023	—	—
Net income (loss) available to Class A members	$68,083	$22,763	$(7,136)
ADES equity earnings	$43,584	$13,813	$53

As described above, the difference between the Company's proportionate share of CCS's net income (loss) (at its equity interest of 42.5%) and the Company's earnings from its CCS equity method investment as reported on its Consolidated Statements of Operations relates to the Company receiving distributions in excess of the carrying value

of the investment, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. When CCS subsequently reports income, we will recognize income only to the extent of cash distributions until such time as the cumulative amount of

earnings equals distributions; thereafter, the Company would continue to recognize its proportionate share of net income (loss). The following table shows the Company's investment balance, equity earnings and cash distributions in excess of the investment balance for the years ended December 31, 2012 through December 31, 2014 (in thousands).

Description	Date(s)	Investment balance	ADES equity earnings (loss)	Cash distributions	Memo Account: Cash distributions and equity loss in (excess) of investment balance
Beginning balance	1/1/2012	$—	$—	$ —	$(4,128)
ADES equity loss from CCS	2012 activity	(3,822)	(3,822)	—	—
Increase of equity loss in excess of investment balance (prior to cash distributions)	2012 activity	3,822	3,822	—	(3,822)
Current year cash distributions from CCS	2012 activity	(53)	—	53	—
Adjustment for current year cash distributions in excess of investment balance	2012 activity	53	53	—	(53)
Total investment balance, equity earnings (loss) and cash distributions	12/31/2012	$—	$53	$ 53	$(8,003)
ADES equity income from CCS	2013 activity	$8,910	$8,910	$ —	$—
Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2013 activity	(8,003)	(8,003)	—	8,003
Current year cash distributions from CCS	2013 activity	(13,813)	—	13,813	—
Adjustment for current year cash distributions in excess of investment balance	2013 activity	12,906	12,906	—	(12,906)
Total investment balance, equity earnings (loss) and cash distributions	12/31/2013	$—	$13,813	$ 13,813	$(12,906)
ADES equity income from CCS	2014 activity	$26,613	$26,613	$ —	$—
Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2014 activity	(12,906)	(12,906)	—	12,906
Current year cash distributions from CCS	2014 activity	(43,584)	—	43,584	—
Adjustment for current year cash distributions in excess of investment balance	2014 activity	29,877	29,877	—	(29,877)
Total investment balance, equity earnings and cash distributions	12/31/2014	$—	$43,584	$ 43,584	$(29,877)

As of December 31, 2014, the Company's future equity earnings from CCS must total $29.9 million before the Company can record additional earnings from equity method investments unless future cash distributions would occur in excess of the then investment balance.

Additional information related to CCS pursuant to Regulation S-X Rule 3-09 is included within Item 15 of this Form 10-K.

Clean Coal Solutions Services

In 2010, the Company, together with NexGen, formed CCSS for the purpose of operating the RC facilities. The Company has determined that CCSS is not a VIE and has evaluated the consolidation analysis under the Voting Interest Model. The Company has a 50% voting and economic interest in CCSS, which is equivalent to the voting and economic interest of NexGen. Therefore, as the Company does not have greater than 50% of the outstanding voting interests, either directly or indirectly, it has accounted for the investment under the equity method of accounting.

As of December 31, 2014 and 2013, the Company's ownership in CCSS was 50% and 50%, respectively. The Company's investment in CCSS as of December 31, 2014 is $4.1 million.

The following tables summarize the assets, liabilities and results of operations of CCSS:

	As of December 31,	
(in thousands)	2014	2013
Current assets	$215,944	$104,076
Non-current assets	$12,623	$6,914
Current liabilities	$127,858	$50,135
Non-current liabilities	$1,214	$94
Equity	$8,298	$6,067
Noncontrolling interests	$91,197	$54,694

	Years Ended December 31,		
(in thousands)	2014	2013	2012
Gross margin	$(22,168)	$(11,055)	$(8,314)
Operating expenses	102,757	63,248	44,876
Loss from operations	(124,925)	(74,303)	(53,190)
Other expenses	(62)	(134)	(155)
Loss attributable to noncontrolling interest	132,237	77,813	54,865
Net income	$7,250	$3,376	$1,520
ADES equity earnings	$3,625	$1,689	$760

Included within the Consolidated Statement of Operations of CCSS during the years ended December 31, 2014, 2013 and 2012 were losses related to VIEs of $132.2 million, $77.8 million and $54.9 million, respectively. These losses do not impact the Company's equity earnings from CCSS as 100% of those losses are attributable to a noncontrolling interest.

Additional information related to CCSS pursuant to Regulation S-X Rule 3-09 is included within Item 15 of this Form 10-K.

RCM6, LLC

On February 10, 2014, the Company purchased a 24.95% membership interest in RCM6, LLC ("RCM6"), which owns and operates a single RC facility that produces RC that qualifies for Section 45 tax credits, from CCS through an up-front payment of $2.4 million and an initial note payable to CCS of $13.3 million, payable over seven years. Due to the payment terms of the note purchase agreement, the note payable periodically adds interest to the note payable balance and as of December 31, 2014, was $14.2 million. In addition to the up front and note payments, the Company is also subject to quarterly capital calls and variable payments based upon differences in originally forecasted RC production as of the purchase date and actual quarterly production. During the year ended December 31, 2014 the Company made capital calls and variable payments of $4.2 million. RCM6 has been determined to be a VIE; however, the Company does not have the power to direct the activities that most significantly impact the variable interest entity’s economic performance and has therefore accounted for the investment under the equity method of accounting.

As of December 31, 2014, the Company’s ownership in RCM6 was 24.95%. The Company’s investment in RCM6 as of December 31, 2014 is $15.4 million.

The following tables summarize the assets, liabilities and results of operations of RCM6:

	As of December 31,
(in thousands)	2014
Current assets	$11,566
Non-current assets	$2,608
Current liabilities	$1,534
Non-current liabilities	$7,105
Equity	$5,535

	Year ended December 31,
(in thousands)	2014
Gross margin	$(8,257)
Operating expenses	2,123
Loss from operations	(10,380)
Other expenses	(666)
Net loss	$(11,046)
ADES equity losses	$(4,497)

The purchase of RCM6 resulted in the Company recording a basis difference related to property, plant and equipment and identifiable intangible assets. The amount by which the total of the Company's investment in RCM6 exceeded is proportionate share of the investee's net assets, recorded within the Equity method investments line item in the Consolidated Balance Sheets as of December 31, 2014 is $14.1 million.

The estimated future depreciation and amortization expense for these assets as of December 31, 2014 is as follows (in thousands):

Years Ending December 31,	Amount (in thousands)
2015	$1,899
2016	1,899
2017	1,899
2018	1,899
2019	1,899
Thereafter	3,799
Total	$13,294

These amounts assume that the RCM6 investment will continue as it currently exists. The difference between the Company's proportionate share of RCM6's net loss and the Company's equity losses noted above relates to this depreciation and amortization. During the year ended December 31, 2014, the Company decreased its equity method earnings in RCM6 by $1.7 million due to the basis difference.

Additional information related to RCM6 pursuant to Regulation S-X Rule 3-09 is included within Item 15 of this Form 10-K.

The following table details the carrying value of the Company's respective equity method investments included within the Equity method investments line item on the Consolidated Balance Sheets and indicates the Company's maximum exposure to loss:

	As of December 31,	
(in thousands)	2014	2013
Equity method investment in CCS	$—	$—
Equity method investment in CCSS	4,149	3,034
Equity method investment in RCM6	15,435	—
Total equity method investments	$19,584	$3,034

The Company evaluates the investments for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment might not be recoverable. No impairments were recorded during the years ended December 31, 2014, 2013 and 2012, respectively.

The following table details the components of the Company's respective equity method investments included within the Earnings from equity method investments line item on the Consolidated Statements of Operations:

	Year ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Earnings from CCS	$43,584	$13,813	$53
Earnings from CCSS	3,625	1,689	760
Loss from RCM6	(4,497)	—	—
Earnings from equity method investments	$42,712	$15,502	$813

The following table details the components of additional cash investments related to the Company's respective equity method investments included within the Consolidated Statements of Cash Flows:

	Year ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Purchase of RCM6 interest from CCS	$3,153	$—	$—
Contributions to RCM6	3,478	—	—
Purchase of and contributions to equity method investments	$6,631	$—	$—

The following table details the components of the cash distributions from the Company's respective equity method investments included within the Consolidated Statements of Cash Flows. Distributions from equity method investees are reported on our Consolidated Statements of Cash Flows as “return on investment” within Operating cash flows until such time as the carrying value in an equity method investee company is reduced to zero; thereafter, such distributions are reported as “distributions in excess of cumulative earnings” within Investing cash flows.

	Year ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Distributions from equity method investees, return on investment			
CCSS	$2,509	$5	$—
Included in Operating Cash Flows	$2,509	$5	$—
Distributions from equity method investees in excess of cumulative earnings			
CCS	$43,584	$13,813	$53
Included in Investing Cash Flows	$43,584	$13,813	$53

Note 9 - Acquisitions

2012 Acquisition

In August 2012, pursuant to an Asset Purchase Agreement (“Purchase Agreement”) executed in July 2012, the Company, through its subsidiary, BCSI, LLC, acquired certain assets of two related privately held companies (“Seller Companies”) that fabricated and supplied DSI systems and other material handling equipment and provided testing and related DSI services ("BCSI acquisition").

The purchase consideration for the Seller Companies was $1.7 million. The BCSI acquisition has been accounted for under the acquisition method of accounting that requires the total purchase consideration to be allocated to the assets acquired and liabilities assumed based on estimates of fair value. Operating results related to the acquired assets have been consolidated into the Company’s results of operations beginning August 31, 2012.

The excess of the acquisition price over the net tangible assets of $0.2 million was recorded as goodwill in the Other assets line item in the Consolidated Balance Sheets. All of the goodwill recorded by the Company related to this acquisition is deductible for tax purposes. The acquisition is reported as part of the Emissions Control - Manufacturing segment.

A summary of the purchase consideration and allocation of the purchase consideration is as follows:

	(in thousands)
Purchase consideration:	
Cash paid	$1,600
Fair value of liabilities assumed:	
Accrued liabilities	58
Total fair value of liabilities assumed	58
Total purchase consideration	$1,658
Allocation of purchase consideration	
Property and equipment	$1,506
Goodwill	152
Total	$1,658

Additionally, in connection with the purchase, the Company entered into certain agreements, in the form of a consulting agreement and notes payable, with the Seller Companies' sole stockholder ("DSI Business Owner") by which the Company would pay the DSI Business Owner up to $3.4 million contingent upon future services over the next five years, paid ratably on a monthly and quarterly basis, respectively. These payments were considered compensation as they relate to future service and through December 31, 2014, the expenses for these services were included in the Legal and professional fees line item of the Consolidated Statements of Operations during the years ended December 31, 2012, 2013 and 2014. The Company terminated the consulting agreement with the DSI Business Owner as of December 31, 2014 and accrued the remaining $1.6 million payable as there are no longer any future service obligations but the Company is still required to make the remaining payments in accordance with the terms of the agreement, as described in Note 10. However, in February 2016, the Company entered into an agreement with the DSI Business Owner to settle the remaining amounts owed as of the date of the agreement of approximately $1.1 million for $0.3 million.

During the year ended December 31, 2013, the Company recognized $0.2 million in impairment expense related to the entire goodwill balance from the 2012 BCSI acquisition, as the carrying value exceeded the fair value, which was been reported in the General and administrative line item in the Consolidated Statements of Operations.

During September 2015, as part of a broader strategic restructuring of the Company's business to simplify its operating structure in a manner that creates increased customer focus, better supports sales and product delivery and also aligns the Company’s cost structure as the emissions control market shifts towards compliance solutions for the Mercury and Air Toxics Standards (“MATS”), the Company’s management approved an action to wind down the manufacturing operations of BCSI, LLC, in order to focus the Company's efforts within the DSI market on engineering. Restructuring charges related these actions are included within Note 3.

2015 Acquisition

On November 20, 2014, the Company entered into an agreement with InSyst Ltd. and ClearView Monitoring Solutions Ltd. (collectively, "ClearView"), both Israel-based companies specializing in data analytics, to allow the Company the exclusive option to purchase certain assets of ClearView. The Company paid $0.2 million related to this option which was included within the Prepaid expenses and other assets line item within the Consolidated Balance Sheets as of December 31, 2014 which would be applied to the future purchase price if applicable. On January 12, 2015, the Company notified ClearView that it had elected to exercise its exclusive option to purchase certain assets of ClearView.

On March 6, 2015, the Company acquired the certain assets of InSyst Ltd. and ClearView Monitoring Solutions Ltd., to be operated under the Company's wholly-owned subsidiary ADA Analytics, for $2.36 million which is inclusive of value-add tax ("VAT tax") of $0.4 million.

The acquisition will be accounted for under the acquisition method of accounting that requires the total purchase consideration to be allocated to the assets acquired and liabilities assumed based on estimates of fair value. Operating results related to the acquired assets will be consolidated into the Company’s results of operations beginning March 6, 2015.

The Company has not finalized the purchase allocation for the acquisition. A summary of the purchase consideration and preliminary allocation of the purchase consideration in 2015 is as follows:

	(in thousands)
Purchase consideration:	
Cash paid	$2,360
Fair value of liabilities assumed:	
Accrued liabilities	10
Contingent consideration	451
Total fair value of liabilities assumed	461
Total purchase consideration	$2,821
Allocation of purchase consideration	
Receivables	$360
Property and equipment and other	82
Intangibles - in process research and development	2,379
Total	$2,821

The transaction called for a series of contingent payments based upon the achievement of sales and sales targets. These contingent payments are classified as contingent consideration. As part of the purchase price, the Company recorded a $0.5 million liability for the contingent consideration based upon the net present value of the Company's estimate of the future payments.

During August 2015, as part of a broader strategic restructuring discussed above, the Company’s management approved an action to wind down operations of ADA Analytics, a wholly owned subsidiary of the Company. Restructuring charges related to these actions are included within Note 3. As a result of these actions, the Company fully impaired the carrying value of the assets, which impairment expense will be recognized in the third quarter of 2015.

Note 10 - Related Party Transactions

The following table shows the Company's receivable balance associated with related parties, as of December 31, 2014 and 2013, respectively:

	As of December 31,	
(in thousands)	2014	2013
Receivable from related party - CCS	$1,439	$630

There were no accounts payable to related parties, as of December 31, 2014 and 2013, respectively.

The Company received advanced payments during the years ended December 31, 2013 and 2012 totaling $10.0 million for M-45™ technology royalties from CCS. These advanced payments are partially applied against royalties earned and therefore reduce future cash payments to the Company. The following table shows the Company's remaining advanced deposit balance, as of December 31, 2014 and 2013, respectively:

	As of December 31,	
(in thousands)	2014	2013
Advance deposit from related party - CCS	$6,524	$8,659

The following table shows the revenues associated with related parties, recognized by the Company during the years ended December 31, 2014, 2013 and 2012 (Restated), respectively:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Revenues from related party - CCS	$665	$1,330	$3,255

The CCS revenues in the table above are included within the Consulting services line in the Consolidated Statements of Operations.

The following table shows the other income associated with related parties, recognized by the Company during the years ended December 31, 2014, 2013 and 2012 (Restated), respectively:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Royalties, related party - CCS	$6,410	$2,505	$1,446
Interest income, related party - CCS	—	40	189
Interest income, related party - CCSS	—	29	46
	$6,410	$2,574	$1,681

The above CCS royalties are included within the Royalties, related party line in the Consolidated Statements of Operations.

Notes Payable

The following table summarizes the Company's notes payable, classified according to payment terms, all of which are with related parties, as of December 31, 2014 and 2013, respectively:

		As of December 31,	
(in thousands)	Related Party	2014	2013
Current portion of long-term borrowings			
RCM6 note payable	CCS	$874	$—
DSI Business Owner note payable	DSI Business Owner	605	—
Total Current portion of long-term borrowings		1,479	—
Long-term borrowings			
RCM6 note payable	CCS	13,312	—
DSI Business Owner note payable	DSI Business Owner	1,119	—
Total Long-term borrowings		14,431	—
Total Borrowings		$15,910	$—

CCS - RCM6 Note Payable

As described in Note 8, the Company acquired membership interests in RCM6 from CCS on February 10, 2014, through an up-front payment of $2.4 million and an initial note payable, which fair value was determined to be $13.3 million as of the acquisition date. Due to the payment terms of the note purchase agreement, the note payable periodically adds interest to the outstanding note payable principal balance. The stated rate associated with the note is 1.65% and the effective rate of the note at inception was 20%. Due to the difference between the stated rate and the effective rate, the note payable is carried at a discount of $10.1 million as of December 31, 2014. Unpaid principal and interest on the note are due in 2022.

DSI Business Owner

As of December 31, 2014, the Company terminated the consulting portion of the agreements with the DSI Business Owner, as described in Note 9. However, per the terms of the remaining agreements the Company is still required to make all remaining payments structured as a note payable through the third quarter of 2017. The interest rate on the note payable is 4%. As there are no longer any future service obligations related to the note payable, the Company recorded $1.6 million of expense within the Legal and professional fees line item of the Consolidated Statements of Operations during the years ended December 31, 2014. As described in Note 9, in February 2016, the Company entered into an agreement with the DSI Business Owner to settle the remaining amounts owed as of the date of the agreement of approximately $1.1 million for $0.3 million.

The following table presents the future aggregate annual long-term debt amounts due, excluding unamortized discounts as of December 31, 2014:

Years Ending December 31,	Amount (in thousands)
2015	$3,159
2016	3,351
2017	3,633
2018	3,695
2019	3,983
Thereafter	8,227
Total	$26,048

Notes Payable subsequent to December 31, 2014

On October 22, 2015, the Company entered into a credit agreement for a $15.0 million short-term loan, with Franklin Mutual Quest Fund and MFP Investors LLC (the "Lenders"), and Wilmington Trust, National Association, as the administrative agent and collateral agent (the “Credit Agreement”). The Credit Agreement matures on April 22, 2016, subject to a three month extension at the Company's option to the extent certain conditions are met. The Credit Agreement bears interest at an annual rate equal to 10.5% and is subject to various prepayment and other premiums if certain events, including a change in control, occur. The Company received net proceeds of $13.5 million and recorded debt discounts and debt issuance costs of $1.5 million. The debt discounts and debt issuance costs will be amortized to interest expense using the effective interest method over the life of the Credit Agreement. The net proceeds are being used to fund working capital needs and for general operating purposes of the Company and its subsidiaries.

All obligations of the Company under the Credit Agreement are unconditionally guaranteed by each of the Company’s wholly-owned domestic subsidiaries (other than ADA Analytics, LLC) and are secured by perfected security interests in substantially all of the assets of the Company and the guarantors, subject to certain agreed upon exceptions.

The Lenders are beneficial owners of Common Stock in the Company. The Credit Agreement was approved by the Company's Board of Directors and by the Audit Committee as a related party transaction.

In connection with the Credit Agreement, and the Company's pledge and assignment to the Collateral Agent for all of ADA's equity interests in CCSS, the Lenders required that NexGen consent to a pledge. The Company entered into an Indemnity Agreement with NexGen whereby ADES and ADA agreed to indemnify NexGen from and against any and all losses, claims, damages, liabilities, costs, fees or expenses, which may arise in connection with the Company pledging its CCSS equity interests. The Indemnity Agreement was approved by the Company's Board of Directors and by the Audit Committee as a related party transaction.

Highview License

In November 2014, in addition to acquiring the cost method investment in Highview, as described in Note 5, the Company's subsidiary, ADA-ES, Inc. also acquired an exclusive license to utilize Highview's technology in North America, payable in British Pounds through 2023, with total payments of $3.4 million, based upon the exchange rate as of December 31, 2014. The technology license is included within the Other assets line item in the Consolidated Balance Sheets and is being amortized over a 10 year period, as described in Note 1. The liability is included within the Other current liabilities and Other long-term liabilities line items in the Consolidated Balance Sheets. The technology license agreement was amended in November 2015 to defer license fee payments for a period of one year, allowing the Company to elect a non-exclusive license at a lower cost, or to terminate the license in return for paying a buy-out fee starting at £0.2 million if terminated in 2016 ($0.3 million based upon the exchange rate in effect as of the date of the November 2015 amendment) and decreases annually over the term of the 10 year agreement.

Clearview

As discussed in Note 9, on November 20, 2014, the Company entered into an agreement with InSyst Ltd. and ClearView Monitoring Solutions Ltd., both Israel-based companies specializing in data analytics, to allow the Company the exclusive option to purchase certain assets of ClearView. The Company paid $0.2 million related to this option which was included within the Prepaid expenses and other assets line item within the Consolidated Balance Sheets as of December 31, 2014. Additionally, from November 20, 2014 through the date of the acquisition, the Company paid certain operating costs of

Clearview. During the year ended December 31, 2014, the Company recorded expenses of $0.2 million related to these payments within the General and administrative line in the Consolidated Statements of Operations. During 2015, prior to the acquisition, the Company recorded expenses of $0.2 million related to these payments within the General and administrative line in the Consolidated Statements of Operations.

Arch Coal License

In June 2010, the Company entered into a Development and License Agreement and executed a Securities Subscription and Investment Agreement with Arch Coal, Inc. ("Arch") pursuant to which the Company licensed, on an exclusive, non-transferable basis, the use of certain of its technology to enhance coal by a proprietary treatment process. The Company received a non-refundable license fee payment from Arch in the amount of $2.0 million and incurred non-reimbursable costs associated with this agreement in the amount of $0.3 million. However, as the agreement does not specify an end date related to the completion of the agreement, the Company has recorded the applicable costs in the Deposits line item within Other Long-term assets and has recorded the payment received in the Deferred revenue lines item in of Other long-term liabilities in Note 12.

Board of Director Matters

An Arch designee holds one seat on the Company’s Board of Directors (the “Board”). The appointment of one designee to the Board was made pursuant to a 2003 Subscription and Investment Agreement, as amended to reflect the effect of the Company's two-for-one stock split in March 2014, whereby the Company’s management agreed to make available one seat on our Board for an Arch designee and to vote all shares and proxies they are entitled to vote in favor of such designee for so long as Arch continues to hold at least 200,000 shares of our common stock.

From May 2014 through September 2014, A. Bradley Gabbard, a member of the Board of Directors since November 2012, entered into a consulting agreement with the Company to assist in the Restatement process, as discussed in Note 2. Mr. Gabbard received compensation of $0.1 million during this period related to the services provided. In addition, as required by the Company's related-party transaction policy, the above noted agreement was approved by the Company’s Audit Committee before being recommended to the Board for approval and was then approved by the disinterested members of the Board. Mr. Gabbard became the Company's Chief Financial Officer in June 2015.

Other Matters

In January 2013, to assist with an executive's relocation to Colorado, the Company purchased a $0.3 million interest in the executive’s real estate owned in New Jersey, consisting of a single family residence and an adjacent vacant lot. The Company had a right to the net proceeds of the sale of the property and was obligated to reimburse the executive for the monthly carrying costs for the property until the property was sold. The property was sold during the second quarter of 2013, and the Company recognized a loss of $0.1 million. This transaction was ratified by our Audit Committee and the Board of Directors.

Refer to Note 8 for a discussion of transactions entered into with the Company's equity investees.

Note 11 - Fair Value Measurements

Fair Value of Financial Instruments

The carrying amounts of financial instruments, including cash and cash equivalents, accounts receivable, accounts payable, deposits and accrued expenses approximate fair value due to the short maturity of these instruments. Accordingly, these instruments are not presented in the table below. The following table provides the estimated fair values of the remaining financial instruments:

(in thousands)	As of December 31, 2014 Carrying Value	Fair Value	As of December 31, 2013 Carrying Value	Fair Value
Financial Instruments:				
Investment securities:				
Investment securities	$—	$—	$105	$105
Investment securities, restricted	$—	$—	$406	$406
Investment securities, restricted, long-term	$336	$336	$332	$332
Cost method investment	$2,776	$2,776	$—	$—
Notes Payable:				
Current portion of notes payable, related parties	$1,479	$1,439	$—	$—
Long-term portion of notes payable, related parties	$14,431	$14,356	$—	$—
Highview technology license payable	$155	$155	$—	$—
Highview technology license payable, long-term	$1,389	$1,389	$—	$—

Concentration of credit risk

The Company's certificates of deposit investment securities are at two financial institutions. If those institutions were to be unable to perform their obligations, the Company would be at risk regarding the amount of investment in excess of the federal deposit insurance corporation limits ($250 thousand) that would be returned to the Company.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The estimated fair values of investment securities are described below. Refer to Note 5 of these Consolidated Financial Statements for additional information regarding the Company’s investment securities.

Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The Company uses the hierarchy prescribed in the accounting guidance for fair value measurements, based upon the available inputs to the valuation and the degree to which they are observable or not observable in the market. The three levels in the hierarchy are as follows:

•Level 1 Inputs - Quoted prices (unadjusted) for identical assets or liabilities in active markets that are accessible as of the measurement date.

•Level 2 Inputs - Inputs other than quoted prices within Level 1 that are observable either directly or indirectly, including but not limited to quoted prices in markets that are not active, quoted prices in active markets for similar assets or liabilities and observable inputs other than quoted prices such as interest rates or yield curves.

•Level 3 Inputs - Unobservable inputs reflecting the Company’s own assumptions about the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk.

Financial instruments carried and measured at fair value on a recurring basis are presented in the table below according to the fair value hierarchy described above:

	As of December 31, 2014			
	Fair Value Measurement Using			
(in thousands)	Level 1	Level 2	Level 3	Fair Value
Assets:				
Investment securities, restricted, long-term	$—	$336	$—	$336

Total assets at fair value	$—	$336	$—	$336

(in thousands)	As of December 31, 2013 Fair Value Measurement Using Level 1	Level 2	Level 3	Fair Value
Assets:				
Investment securities	$—	$105	$—	$105
Investment securities, restricted	—	406	—	406
Investment securities, restricted, long-term	—	332	—	332
Total assets at fair value	$—	$843	$—	$843

The estimated fair value of certificates of deposit investments securities were estimated to be equal to the deposit value of the investment due to the market interest rates and relative short term nature of the instrument. The Company's experience with these types of investments and the expectations of the current investments held is that they will be satisfied at the current carrying amount. These securities were classified as Level 2.

Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

The following tables show information related to assets and liabilities measured on a non-recurring basis as of December 31, 2014 and 2013, respectively.

(in thousands)	As of December 31, 2014 Fair Value Measurement Using Level 1	Level 2	Level 3	Fair Value	Total Losses
Assets:					
Property and equipment	$—	$—	$424	$424	$(355)
Impaired note receivable	—	—	—	—	(500)
Total assets at fair value	$—	$—	$424	$424	$(855)

During the year ended December 31, 2014, the Company recorded impairments on property and equipment with a total carrying value of $0.8 million, as a result of ongoing negative cash flows related to assets specifically related to the Company's DSI system fabrication facility. The fair values of the impaired assets were estimated using an appraisal obtained from a third party. The fair value measurements represent a Level 3 measurement as it is based on significant inputs not observable in the market. Additionally, the Company recorded impairment charges related to a Note Receivable, as discussed in Note 12. The fair value of the impaired note receivable, determined to be fully impaired, was estimated using a discounted cash flow analysis. The fair value measurements represent a Level 3 measurement. These impairment charge are included within the General and administrative line item in the accompanying Consolidated Statements of Operations. In December 2014, the Company loaned $0.5 million to an independent third party to provide financing to pursue emissions technology projects. During the year ended December 31, 2014, the Company recorded an allowance against the entire principal balance of a note receivable outstanding, as further discussed in Note 12.

(in thousands)	As of December 31, 2013 Fair Value Measurement Using Level 1	Level 2	Level 3	Fair Value	Total Losses
Assets:					
Property and equipment	$—	$—	$526	$526	$(125)
Goodwill	—	—	—	—	(152)
Total assets at fair value	$—	$—	$526	$526	$(277)

During the year ended December 31, 2013, the Company recorded impairments on property and equipment and goodwill, with a total carrying value of $0.7 million and $0.2 million, respectively, as a result of ongoing negative cash flows related to assets specifically related to the Company's DSI system fabrication facility. The fair value of the impaired property and equipment was estimated using an appraisal obtained from a third party. The fair value

measurements represent a Level 3 measurement as it is based on significant inputs not observable in the market. The fair value of the impaired goodwill, determined to be fully impaired, was estimated using a discounted cash flow analysis. The fair value measurement represents a Level 3 measurement.

Note 12 - Supplemental Financial Information

Supplemental Balance Sheet Information
The following table summarizes the components of Prepaid expenses and other assets and Other assets on the Consolidated Balance Sheets:

	As of December 31,	
(in thousands)	2014	2013
Other current assets:		
Prepaid expenses	$1,573	$550
Inventory	630	130
Other	332	1
	$2,535	$681
Other long-term assets:		
Deposits	$638	$186
Intangibles	2,035	423
Other long-term assets	322	728
	$2,995	$1,337

In December 2014, the Company loaned $0.5 million to an independent technology development company exploring energy storage to provide financing to pursue emissions technology projects, bearing annual interest of 8%. Interest and principal were payable at maturity of the agreement in June 2015. During March 2015, the Company loaned an additional $0.5 million to the third party, continuing to bear annual interest at 8%, and all interest and principal payments were then due in March 2018. Subsequent to the second loan disbursement, the Company became aware that the independent technology development company exploring energy storage was not awarded contracts which would have utilized their emissions technology. The Company also became aware that without these contracts, the ability of the independent third party to repay these loans was in doubt. The Company concluded that it was probable that as of December 31, 2014 facts existed that caused the loan to be impaired as of that date, even though the Company did not become aware of these facts until 2015. Therefore, the Company concluded that it was not probable that the third party had the ability to repay principal and interest based upon the contract terms as of the date of the original disbursement. As a result, the Company recorded an allowance against the entire principal balance of the note receivable outstanding as of December 31, 2014, reversed accrued interest and put the note on non-accrual status as of December 31, 2014. The Company also recorded an allowance in 2015 against the additional principal balance of the note receivable disbursed in March 2015. The expense related to the note receivable allowance in included within the General and administrative line item in the Consolidated Statements of Operations.

The following table details the components of Other current liabilities and Other long-term liabilities on the Consolidated Balance Sheets:

	As of December 31,	
(in thousands)	2014	2013
Other current liabilities:		
Accrued compensation	$1,539	$879
Accrued interest	894	875
Accrued losses on equipment contracts	3,127	4,805
Other	1,179	822
	$6,739	$7,381
Other long-term liabilities:		
Deferred rent	$1,021	$989
Warranty liabilities	152	62
Deferred revenue, related party	2,000	2,000
Other long-term liabilities	2,838	1,401

$6,011	$4,452

Included within Other long-term liabilities is the Company's asset retirement obligation. Changes in the Company's asset retirement obligations were as follows:

	As of December 31,	
(in thousands)	2014	2013
Asset retirement obligation, beginning of year	$1,130	$—
Liability incurred	—	1,075
Accretion	58	55
Asset retirement obligations, end of year	$1,188	$1,130

Supplemental Consolidated Statements of Operations Information

The following table details the components of Interest expense in the Consolidated Statements of Operations:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
453A interest	$3,371	$1,313	$787
RCM6 note payable, related party	2,245	—	—
Other	109	25	11
	$5,725	$1,338	$798

During the year ended December 31, 2013, the Company recognized $1.1 million of depreciation expense, included within the Research and development, net line item in the Consolidated Statements of Operations related to the research and development asset giving rise to the asset retirement obligation.

Note 13 - Stockholders Equity

The Company has two classes of capital stock authorized, common stock and preferred stock, which are described as follows:

Preferred Stock

The Board of Directors is authorized to provide, out of the unissued shares of Preferred Stock and to fix the number of shares constituting a series of Preferred Stock and, with respect to each series, to fix the number of shares and designation of such series, the voting powers, if any, the preferences and relative, participating, option or other special rights, if any, and any qualifications, limitations or restrictions thereof, of the shares of such series. As of December 31, 2014 and 2013, there was no Preferred Stock outstanding.

Common Stock

Holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. Additionally, holders of common stock are entitled to receive dividends when and if declared by the Board of Directors, subject to any statutory or contractual restrictions on payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock.

Upon dissolution, liquidation or the sale of all or substantially all of the Company's assets, after payment in full of any amounts required to be paid to creditors and to the holders of preferred stock having liquidation preferences, if any, the holders of shares of common stock will be entitled to receive the Company's remaining assets for distribution on a pro rata basis.

Dividends

The Company is limited in its ability to pay dividends without concurrently increasing its letters of credit related to the Royalty Award, further discussed in Note 15, in an amount equal to 50% of the fair market value of the dividend. The Company is also restricted from paying dividends as a result of the Credit Agreement entered into during the fourth quarter of 2015. Should the Company pay dividends, the payment of such dividends will be dependent upon earnings, financial condition and other factors considered relevant by the Company's Board of Directors and will be subject to limitations imposed under Delaware law.

Activity

On November 20, 2013, the Company closed on an underwritten public offering selling 1,380,000 shares of common stock for $22.50 per share generating approximately $29.0 million in net proceeds.

On March 14, 2014, the Company effected a two-for-one stock split of the Company’s common stock, which was effected in the form of a common stock dividend and all amounts have been retroactively adjusted for the split.

On February 1, 2015, the Company entered into a Rights Agreement with Computershare Trust Company N.A. as the Rights Agent (“Rights Agreement”) whereby it declared a dividend distribution of one Right for each outstanding share of common stock, par value of $0.001. The dividend was payable to holders of record as of the close of business on February 16, 2015 (the "Record Date"). Each holder of Common Stock as of the Record Date received a dividend of one Right per share of Common Stock. One Right was also issued together with each share of Common Stock issued by the Company after the Record Date and prior to the Distribution Date, and in certain circumstances, after the Distribution Date. New certificates for Common Stock issued after the Record Date contain a notation incorporating the Rights Agreement by reference. The Rights expired on February 1, 2016. Until the distribution date, the Rights are not exercisable and can only be transferred in connection with the transfer of Common Stock. As of the distribution date, if it occurs, the Rights will separate from the Common Stock and become exercisable to purchase one one-thousands of a share of Series A Junior Preferred Stock of the Company at a purchase price, which may be adjusted, of $63.00. This portion of a share of Preferred Stock would give the holder approximately the same dividend, voting and liquidation rights as would one share of Common Stock. The Series A Junior Preferred Stock is not redeemable and ranks junior to all other series of the Company's Preferred Stock as to the payment of dividends and distribution of assets. On December 16, 2015, the Company entered into the First Amendment to the Rights Agreement ("Amendment"). The Amendment amended the definition of an “Acquiring Person” to increase the beneficial ownership threshold of the Company's common stock in such definition from 10% to 20%. The Amendment did not change the expiration date.

Note 14 - Stock-Based Compensation

The Plans

The Company currently has several stock and option plans, including the 2005 Directors’ Compensation Plan (the “2005 Plan”), the Amended and Restated 2007 Equity Incentive Plan, as amended (the “2007 Plan”), the Amended and Restated 2010 Non-Management Compensation and Incentive Plan, as amended (the “2010 Plan”) and the Profit Sharing Retirement Plan, which is a plan qualified under Section 401(k) of the Internal Revenue Code (the “401(k) Plan”) as described below. These plans allow the Company to issue stock-based awards, including common stock, restricted stock, stock options and other rights and benefits under the plans to employees, directors and non-employees. As discussed in Note 1 and Note 21, effective July 1, 2013, ADES replaced ADA as the publicly held corporation and assumed and adopted these plans and the outstanding awards granted pursuant to the plans.

The 2005 Plan - During 2005, the Company adopted the 2005 Plan, which authorized the issuance of shares of common stock and the grant of options to purchase shares of common stock to non-management directors. Under the 2005 Plan, the award of stock is limited to not more than 2,000 shares per individual per year, and the grant of options is limited to 10,000 per individual in total. The aggregate number of shares of common stock reserved for issuance under the 2005 Plan totals 180,000 shares (100,000 in the form of stock awards and 80,000 in the form of options). These stock options vest in three equal annual installments beginning one year after the grant date.

The 2007 Plan - During 2007, the Company adopted the 2007 Plan, as amended and restated on July 1, 2013 and amended on July 19, 2012 and February 12, 2014, with two additional amendments, approved by the Board on February 13, 2014 and
June 5, 2015, pending stockholder approval. The 2007 Plan permits grants to employees, directors and non-employees of shares of common stock, restricted stock, stock options, cash awards and other rights and benefits under the plan. The maximum annual grant limit for a non-management director on an annual basis is 50,000 shares (subject to stockholder approval). The maximum awards available to be granted from the 2007 Plan on an annual basis to any other individual is 400,000 shares (subject to stockholder approval). The total number of shares authorized for issuance under the 2007 Plan is 3.6 million.

The Compensation Committee of the Board of Directors has also approved annual long-term incentive awards for executive officers under the 2007 Plan. The awards vest in equal installments over a period of three years subject to the grantee’s continuous service with the Company and the grant of PSU's. Each PSU represents a contingent right to receive shares of the Company’s common stock if the Company meets certain performance measures over the requisite period. Vesting of the PSU's, if at all, will occur no later than January 2 after the conclusion of the third year of the performance period, subject to the grantee’s continuous service and the achievement of certain pre-established performance goals. Amounts vested are measured as of December 31st, immediately prior to the end of the service period, unless the PSU's vest sooner at the target amount as a result of certain transactions pursuant to Section 11 of the 2007 Plan.

The number of shares of common stock a participant receives will be increased (up to 200 percent of target levels) or reduced (down to zero) based on the level of achievement of performance goals. The number of PSU's that may be earned by a participant is determined at the end of the performance period based on the relative placement of the Company’s total stockholder return (“TSR”) for that period with approximately 75% of the award based on the relative performance of the

Company's TSR performance compared to the respective TSRs of a specified group of peer companies and the remaining portion of the award based on the Company's TSR performance compared to the Russell 3000 Index.

The 2010 Plan - During 2010, the Company adopted the 2010 Plan which permits grants of awards to employees, which may be shares, rights to purchase restricted stock, bonuses of restricted stock, or other rights or benefits under the plan. The Company reserved 600,000 shares of its common stock for these purposes. The Plan was amended and restated as of July 19, 2012 to make non-material changes to assure Internal Revenue Code Section 409A compliance.

The 401(k) Plan - In 2009, the Company revised its 401(k) Plan to allow the issuance of shares of its common stock to employees to satisfy its obligation to match employee contributions under the terms of the plan in lieu of matching contributions in cash. The Company reserved 600,000 shares of its common stock for this purpose. The value of common stock issued as matching contributions under the plan is determined based on the per share market value of the Company's common stock generally on quarterly authorization dates. Activity related to the 401(k) Plan is included in Note 16.

Collectively, these plans are called the "Plans."

Expense

Restricted Stock - Restricted stock is typically granted with vesting terms of three or five years. The fair value of Restricted Stock Awards ("RSA's") is determined based on the closing price of the Company's common stock on the authorization date of the grant multiplied by the number of shares subject to the stock award. Compensation expense for restricted stock awards is generally recognized over the entire vesting period on a straight-line basis.

Stock Options - Stock options generally vest over three years and have a contractual limit of five years from the date of grant to exercise. The fair value of stock options granted is determined on the date of grant using the Black-Scholes option pricing model and the related expense is recognized on a straight-line basis over the entire vesting period. The following table indicates the weighted average assumptions that were used related to the awards granted for the years ended December 31, 2014, 2013 and 2012 (Restated), respectively:

	Years Ended December 31,					
	2014		2013		2012 (Restated)	
Stock options granted:						
Risk-free interest rate	1.6	%	0.9	%	0.7	%
Dividend yield	—	%	—	%	—	%
Volatility	80.4	%	91.0	%	92.0	%
Expected term (in years)	5.0		5.0		5.0	

The Company uses historical data to estimate inputs used in the Black-Scholes option pricing model.

Risk-free interest rate - The risk-free interest rate for stock options granted during the period was determined by using a zero-coupon U.S. Treasury rate for the periods that coincided with the expected terms listed above.

Dividends - As no dividends have been paid, nor are expected to be paid in future periods, no dividend yield was included in the calculations.

Expected volatility - To calculate expected volatility, the Company's historical volatility of common shares was used.

Expected term - The Company's expected term of options was based upon historical exercise behavior and consideration of the vesting term of the Company's options and the options' contractual term of five years.

PSU's - Compensation expense is recognized for PSU awards on a straight-line basis over a three-year service period based on the estimated fair value at the date of grant using a Monte Carlo simulation model using the following weighted average assumptions (PSU awards were not granted prior to 2013):

	Years Ended December 31,			
	2014		2013	
PSUs granted:				
Risk-free interest rate	0.8	%	0.4	%
Dividend yield	—	%	—	%
Volatility	74.5	%	81.4	%
Performance period (in years)	3.0		3.0	

The Company uses historical data to estimate inputs used in the Monte Carlo pricing model.

Risk-free interest rate - The risk-free interest rate for PSU's granted during the period was determined by using a zero-coupon U.S. Treasury rate for the periods that coincided with the expected terms listed above.

Dividends - As no dividends have been paid, nor are expected to be paid in future periods, no dividend yield was included in the calculations.

Expected volatility - To calculate expected volatility, the Company's historical volatility of common shares was used.

Performance period - The Company's performance period is based upon the vesting term of the Company's PSU awards.

The Company recorded the following compensation expense related to its various plans:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Restricted stock award expense	$2,612	$1,681	$645
Stock option expense	117	48	4
PSU expense	1,983	583	—
Total stock-based compensation expense	4,712	2,312	649
Income tax benefit from stock-based compensation expense	—	—	—
Net income impact	$4,712	$2,312	$649

The Company recorded awards to Directors in General and administrative expense line and all other awards within the Payroll and benefit expense line in the accompanying Consolidated Statements of Operations.

During the years ended December 31, 2014 and 2013, the Company modified the terms of awards granted to 17 and one employees, respectively, in connection with its realignment plan and termination of the impacted employees discussed in Note 3. These modifications resulted in the accelerated vesting and incremental expense related to certain performance-based awards and restricted stock awards. As a result, during 2014 and 2013, the Company recognized incremental share-based compensation of $1.0 million and zero, respectively, which was included in the Payroll and benefits line item in the Consolidated Statements of Operations.

The amount of unrecognized compensation cost as of December 31, 2014, and the expected weighted average period over which the cost will be recognized is as follows:

	As of December 31, 2014	
(in thousands)	Unrecognized Compensation Cost	Expected Weighted Average Period of Recognition (in years)
Restricted stock award expense	$1,982	1.6
Stock option expense	382	1.7
PSU expense	1,711	1.3

Total unrecognized stock-based compensation expense	$4,075	1.5

Activity

Restricted Stock

A summary of the status and activity of non-vested RSA is presented in the following table:

	For the Years Ended December 31.					
	2014		2013		2012 (Restated)	
(in thousands, except for share and per share amounts)	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted-Average Grant-Date Fair Value	Shares	Weighted-Average Grant-Date Fair Value
Non-vested at beginning of year	263,989	$9.05	254,156	$6.96	231,006	$5.45
Granted	112,643	$24.74	82,440	$16.88	83,026	$12.00
Vested	(118,364)	$15.75	(63,187)	$10.73	(58,856)	$8.18
Forfeited	(48,347)	$9.49	(9,420)	$9.53	(1,020)	$5.37
Non-vested at end of year	209,921	$13.59	263,989	$9.05	254,156	$6.96

The weighted-average grant-date fair value of RSA's granted or modified during the years ended December 31, 2014, 2013, and 2012 (Restated) was $2.8 million, $1.4 million, and $1.3 million, respectively. The total fair value of shares vested during the years ended December 31, 2014, 2013 and 2012 (Restated) was $1.9 million, $0.7 million and $0.5 million, respectively.

During the years ended December 31, 2014, 2013, and 2012 (Restated), the Company modified the terms of equity awards granted to one, 11 and one employee(s), respectively. As of the modification dates in 2014, 2013 and 2012 (Restated), the Company recorded a liability in Accrued payroll and related liabilities line item in the Consolidated Balance Sheets of $0.1 million, $1.0 million and zero, respectively, related to such liability classified awards and an offsetting reduction to Additional paid-in capital line item in the Consolidated Balance Sheets.

During the years ended December 31, 2014 and 2013, the Company accelerated the vesting and expense recognition of 55,106 and 744 RSA's granted to 17 and one employees, respectively, in accordance with severance agreements. As a result, during 2014 and 2013, the Company recognized incremental share-based compensation of $1.0 million and zero, respectively, which was included in the Payroll and benefits line item in the Consolidated Statements of Operations.

Stock Options

A summary of option activity under the Plans is presented below:

(in thousands, except for share and per share amounts)	Number of Options Outstanding and Exercisable	Weighted Average Exercise Price	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Term (in years)
For the year ended December 31, 2012				
Options outstanding, start of year	365,884	$4.97		
Options granted	10,000	$9.77		
Options exercised	(3,932)	$5.37		
Options expired / forfeited	—	$—		
Options outstanding, end of year	371,952	$5.10	$1,256	1.8
Options vested and exercisable as of December 31, 2012	361,952	$4.97	$1,256	1.8
For the year ended December 31, 2013				
Options outstanding, start of year	371,952	$5.10		
Options granted	10,000	$11.93		
Options exercised	(54,376)	$6.51		
Options expired / forfeited	(10,000)	$5.10		
Options outstanding, end of year	317,576	$5.07	$7,002	1.0
Options vested and exercisable as of December 31, 2013	300,909	$4.74	$6,734	0.8
For the year ended December 31, 2014				
Options outstanding, start of year	317,576	$5.07		
Options granted	30,000	20.67		
Options exercised	(260,126)	4.30		
Options expired / forfeited	(13,250)	6.90		
Options outstanding, end of year	74,200	$13.76	$670	3.0
Options vested and exercisable as of December 31, 2014	34,199	$8.44	$491	1.6

The weighted-average grant-date fair value of options granted during the years ended December 31, 2014, 2013, and 2012 (Restated) was $20.67, $11.93, and $9.77, respectively. The total intrinsic value of options exercised during the years ended December 31, 2014, 2013 and 2012 (Restated) was $4.9 million, $0.8 million and zero, respectively. The total fair value of shares issued as a result of options exercised (measured as of the date of exercise) during the years ended December 31, 2014, 2013 and 2012 (Restated) was $6.1 million, $1.2 million and zero, respectively.

Cash flows resulting from excess tax benefits are classified as part of cash flows from financing activities. Excess tax benefits are realized tax benefits from tax deductions for vested RSA's, settled PSU's, and exercised options in excess of the deferred tax asset attributable to stock compensation costs for such equity awards. The Company recorded no excess tax benefits for the years ended December 31, 2014, 2013, and 2012.

During the nine months ended September 30, 2015, approximately $0.5 million of stock-based compensation expense was recognized as a result of granting an executive officer stock options to purchase the Company's common stock and fully vested common stock.

PSU's

A summary of the status and activity of non-vested PSU is presented in the following table (there were no PSU's issued until 2013):

(in thousands, except for share and per share amounts)	For the Years Ended December 31.			
	2014		2013	
	Units	Weighted-Average Grant-Date Fair Value	Units	Weighted-Average Grant-Date Fair Value
Non-vested at beginning of year	89,578	$ 26.04	—	$ —
Granted (1)	57,547	$ 37.45	89,578	$ 26.04
Vested (1)	—	$ —	—	$ —
Forfeited / Canceled (1)	(4,768)	$ 26.04	—	$ —
Non-vested at end of year	142,357	$ 30.65	89,578	$ 26.04

(1) The number of awards assumes the target amount of awards for each employee participating in these grants is met. The final number of shares of common stock issued may vary depending on the actual price performance of the Company's common stock, which could result in the actual number of shares that vest ranging from zero shares up to a maximum of two times the number of units shown in the above table.

The weighted-average grant date fair value of PSU's granted during the years ended December 31, 2014, 2013, and 2012 (Restated) was $2.2 million, $2.3 million, and zero, respectively. The PSU's granted will remain unvested until the third anniversary date of their issuance, at which time the actual number of vested shares will be determined based upon the actual price performances of the Company’s common stock relative to a broad stock index and a peer group performance index.

During the year ended December 31, 2014, the Company modified certain PSU's that were granted to two former executive officers in 2013 and 2014. In the third quarter of 2014, the Company recorded incremental expense of $0.2 million.

No PSU's vested during the years ended December 31, 2014, 2013 and 2012 (Restated), respectively.

Subsequent to December 31, 2014, the Company settled certain PSU's that were granted to a former executive officer in 2013 and 2014. The 2013 awards earned a 1.75-times and 2.0-times multiplier related to the TSR and Russell 3000 Index performance metrics, respectively. The Company settled the 2013 award by issuing 12,722 shares of the Company’s common stock in accordance with the terms of the PSU awards. The 2014 awards earned a 0.75-times and 0.0-times multiplier related to the TSR and Russell 3000 Index performance metrics, respectively. The Company settled the 2014 award by issuing 2,440 shares of the Company’s common stock in accordance with the terms of the PSU awards.

The Company and the former officer mutually agreed to net share settle the 2013 and 2014 awards to cover income and payroll tax withholdings as provided for in the plan document and award agreements. As a result, 4,712 shares were withheld to satisfy income and payroll tax withholding obligations that occurred upon delivery of the shares underlying those PSU's. The total fair value of shares vested subsequent to December 31, 2014 was $0.4 million.

Other Matters

Cash received from share-based payment exercises under all arrangements for the years ended December 31, 2014, 2013 and 2012 (Restated) was $0.2 million, $0.4 million, and zero, respectively.

In 2015, in connection with the reduction in force, the Company accelerated vesting of 79,300 RSA's/PSU's for 41 employees in accordance with severance agreements. The incremental stock compensation expense related to the acceleration was $0.9 million. Additionally in 2015, the Company modified the award of 100,884 PSU's for one executive officer in connection with his retirement. The incremental stock compensation expense was $0.3 million.

Note 15 - Commitments and Contingencies
Legal Proceedings

The Company is involved in certain legal actions, described below. The outcomes of these legal actions are not within the Company's complete control and may not be known for prolonged periods of time. In some actions, the claimants seek monetary damages and other penalties that could require significant expenditures. In accordance with generally accepted accounting principles, the Company records a liability in the Consolidated Financial Statements for loss contingencies when a loss is known or considered probable and the amount can be reasonably estimated. If the reasonable estimate of a known or probable loss is a range, and no amount within the range is a better estimate than any other, the minimum amount of the range is accrued. If a loss is reasonably possible but not known or probable, and can be reasonably estimated, the estimated loss or range of loss is disclosed. When determining the estimated loss or range of loss, significant judgment is required to estimate the amount and timing of a loss to be recorded. Estimates of probable losses resulting from litigation and governmental proceedings involving the Company are inherently difficult to predict, particularly when the matters are in early procedural stages, with incomplete facts or legal discovery; involve unsubstantiated or indeterminate claims for damages; potentially involve penalties or fines.

Securities class action lawsuit: United Food and Commercial Workers Union v. Advanced Emissions Solutions, Inc., No. 14-cv-01243-CMA-KMT (U.S. District Court, D. Colo.)

A class action lawsuit against ADES and certain of its current and former officers is pending in the federal court in Denver, Colorado. This lawsuit and a companion case were originally filed in May 2014. On February 19, 2015, the Court consolidated these cases and appointed the United Foods and Commercial Workers Union and Participating Food Industry Employers Tri-State Pension Fund as lead plaintiff and approved its selection of the law firms. The consolidated case is now captioned United Food and Commercial Workers Union v. Advanced Emissions Solutions, Inc., No. 14-cv-01243-CMA-KMT (U.S. District Court, D. Colo.).

The lead plaintiff filed "Lead Plaintiff's Consolidated Class Action Complaint" on April 20, 2015 (the "Consolidated Complaint"). The Consolidated Complaint names as defendants the Company and certain current and former Company officers.

Plaintiffs allege that ADES and other defendants misrepresented to the investing public the Company's financial condition and its financial controls to artificially inflate and maintain the market price of ADES's common stock. The Consolidated Complaint alleges two claims for relief for: 1) alleged violations of Section 10(b) of the Securities Exchange Act of 1934 and Rule 10b-5, and 2) control person liability under Section 20(a) of the Exchange Act.

The lawsuit seeks unspecified monetary damages together with costs, and attorneys' fees incurred in prosecuting the class action, among other relief. The Consolidated Complaint, alleges a class period covering all purchasers or acquirers of the common stock of ADES or its predecessor-in-interest during the proposed class period from May 12, 2011 through January 29, 2015.

Defendants filed a motion to dismiss the Consolidated Complaint on June 19, 2015, contending the Consolidated Complaint: 1) fails to meet the strict pleading standards required for Section 10(b) claims; and 2) fails to establish the primary violation required for any claim of secondary (control person) liability. Plaintiffs filed a response in opposition to this motion on July 2, 2015 and Defendants filed their reply brief on July 16, 2015. The Court has not yet ruled on this motion.

The Company has not recorded an expense related to losses in connection with this matter because any potential loss is not currently probable or reasonably estimable under U.S. GAAP. Additionally, the Company cannot reasonably estimate the range of loss, if any, that may result from this matter.

Stockholder derivative lawsuits: In Re Advanced Emissions Solutions, Inc. Shareholder Derivative Litigation, No. 2014CV-30709 (District Court, Douglas County, Colorado) (consolidated actions).

Consolidated stockholder derivative claims against certain of the Company's current and former officers and directors, along with the Company as a "nominal defendant", are pending in the District Court for Douglas County, Colorado, and are currently stayed.

In June and July 2014 stockholder derivative actions were filed in the Colorado District Courts for Douglas County and for the City and County of Denver. By agreement of the parties, the case in the Denver District Court was transferred to the Douglas County District Court and the cases were consolidated.

In separate complaints, the plaintiffs allege breach of fiduciary duties, waste of corporate assets, and unjust enrichment against the defendants for their allegedly utilizing improper accounting techniques and failing to maintain effective internal controls that together resulted in materially inaccurate financial statements from which incentive compensation was derived and paid. Plaintiffs demand, on behalf of the Company, unspecified monetary damages, “appropriate equitable relief,” and the costs and disbursements of the action, including attorneys', accountants and expert fees, costs, expenses, and restitution, as well as certain corporate governance changes.

On August 28, 2014, the Colorado state court approved a Stipulation and proposed Order Consolidating Actions (the "Order"), Appointing Co-Lead Plaintiffs and Co-Lead Counsel, and Staying Consolidated Action. Under that Order, the consolidated derivative actions are stayed at least 30 days after a decision by the U.S. District Court on the Defendants’ motion to dismiss the operative complaint in the securities class action. Any party has the right to move to lift the stay on 30-days’ written notice to the other parties.

The Company has not recorded an expense related to losses in connection with this matter because any potential loss is not currently probable or reasonably estimable under U.S. GAAP. Additionally, the Company cannot reasonably estimate the range of loss, if any, that may result from this matter.

SEC Inquiry

On April 7, 2014, the SEC’s Division of Enforcement informed the Company that it had initiated an inquiry to determine if violations of the federal securities laws have occurred (the “SEC Inquiry”), and in September 2014 the SEC issued a formal order of investigation. The SEC Inquiry generally pertains to the restatement of the Company's financial statements and internal controls processes, as described in Note 2 of the Consolidated Financial Statements. The Company is fully cooperating with the SEC and has provided information and documents to the SEC on an ongoing basis. To date, the SEC has not asserted any formal claims. While we cannot predict the duration or outcome of the SEC Inquiry, it could result in the payment of monetary penalties and other relief.

The Company has not recorded an expense related to losses in connection with this matter because any potential loss is not currently probable or reasonably estimable under U.S. GAAP. Additionally, the Company cannot reasonably estimate the range of loss, if any, that may result from this matter.

Settlement and Royalty Indemnity

In August 2008, Norit International N.V. f/k/a Norit N.V. ("Norit") filed a lawsuit against the Company asserting claims for misappropriation of trade secrets and other claims related to the Company's ADA Carbon Solutions, LLC joint venture ("Carbon Solutions"). The Norit lawsuit, initially filed in Texas was moved to arbitration, and on April 8, 2011, the arbitration panel issued an interim award holding the Company liable for approximately $37.9 million for a non-solicitation breach of contract claim and held the Company and certain other defendants liable for royalties of 10.5% for the first three years beginning in mid-2010 and 7% for the following five years based on adjusted sales of activated carbon from the Red River plant.

On August 29, 2011, the Company and Norit entered into a settlement agreement whereby the Company paid a lump-sum payment to Norit totaling $33 million on August 30, 2011 ("Settlement Agreement, Lump Sum"). In addition, the Company agreed to pay an additional $7.5 million over a three-year period commencing on June 1, 2012, payable in three installments without interest of $2.5 million. Under the terms of the settlement agreement, ADA was also required to pay additional damages related to certain future revenues generated from the equity method investment through the second quarter of 2018 (the “Royalty Award”). Payments of amounts due under the Royalty Award for each quarter are payable three months after such quarter ends through the second quarter of 2018. On October 18, 2011, the arbitration panel endorsed and confirmed the terms of the settlement agreement.

Additionally, during November 2011, the Company entered into an Indemnity Settlement Agreement whereby the Company agreed to settle certain indemnity obligations asserted against the Company related to the Norit litigation. Under the terms of the Indemnity Settlement Agreement, the Company paid Carbon Solutions a $2 million payment on November 28, 2011 and agreed to make 16 additional monthly payments of $0.1 million with the first one paid on November 28, 2011, and the remaining 15 payments commencing on December 1, 2011, relinquished all of its equity interest in Carbon Solutions to Carbon Solutions and amended the Intellectual Property License Agreement dated

October 1, 2008 between the Company and Carbon Solutions. Additionally, in the event that the Company declares or otherwise issues a dividend to any or all of its stockholders prior to January 1, 2018, other than repurchases of common stock under employee stock plans, the Company must increase its letter of credit amounts, which support the payments which must be paid to Norit, equal to 50% of the aggregate fair market value of such dividends.

As of December 31, 2014 and 2013, the Company has recorded the components of the Settlement and royalty indemnity obligation and Settlement and royalty indemnification, long-term line items in the Consolidated Balance Sheets as follows:

	As of December 31,	
(in thousands)	2014	2013
Settlement and royalty indemnity obligation, short-term	$3,749	$4,622
Settlement and royalty indemnification, long-term	20,273	24,021
Total settlement and royalty indemnity	$24,022	$28,643

Future amounts to be paid related to the Royalty Award may materially differ from current estimates due to future adjusted sales of activated carbon from the Red River plant. See Note 2 for additional details related to these matters.

CCS

The Company also has certain limited obligations contingent upon future events in connection with the activities of CCS. The Company, NexGen and two entities affiliated with NexGen have provided GSFS with limited guarantees (the “CCS Party guarantees”) related to certain losses it may suffer as a result of inaccuracies or breach of representations and covenants. The Company also is a party to a contribution agreement with NexGen under which any party called upon to pay on a CCS Party Guaranty is entitled to receive contribution from the other party equal to 50% of the amount paid.

Consultant Obligation

On January 1, 2012, the Company entered into a residual payment agreement with a former consultant who was involved in the development and deployment of RC technologies. Pursuant to the agreement, the Company is required to make annual payments based upon CCS RC production from January 1, 2012 through June 30, 2015. These expenses are recorded within the Legal and professional fees line item in the Consolidated Statements of Operations and are recorded as RC production occurs. During the years ended December 31, 2014, December 31, 2013 and 2012 (Restated), the Company recorded expenses under this agreement of $1.4 million, $0.6 million and $0.2 million, respectively. Additional aggregated payments related to this agreement totaling $1.7 million were made in 2015 and 2016. The Company made the final payment related to this obligation, in the amount of approximately $0.3 million, in January 2016.

Line of Credit

In September 2013, ADA, as borrower, and ADES, as guarantor, entered into a 2013 Loan and Security Agreement with a bank for an aggregate principal amount of $10 million that is secured by certain amounts due to the Company from certain CCS RC leases (the "Line of Credit"). As amended, the Line of Credit is available until May 31, 2016. Covenants in the Line of Credit include a borrowing base limitation that is based on a percentage of the net present value of ADA’s portion of payments due to CCS from the RC leases. The Line of Credit also contains other affirmative and negative covenants and customary indemnification obligations of ADA to the lender and provides for the issuance of Letters of Credit provided that the aggregate amount of the Letters of Credit plus all advances then outstanding does not exceed the calculated borrowing base. The Company guaranteed the obligations and agreements of ADA under the Line of Credit. Amounts outstanding under the Line of Credit bear interest payable monthly at a rate per annum equal to the higher of 5% or the “Prime Rate” (as defined in the agreement) plus 1%. There were no outstanding balances under this agreement at December 31, 2014 and 2013, respectively. As a result of certain covenant violations, the Company has no borrowing availability under this facility until such time as it has achieved compliance with filing requirements under applicable securities regulations.

The Line of Credit has been amended six times (December 2, 2013, April 3, 2014, September 20, 2014, December 15, 2014, May 29, 2015 and September 30, 2015), most notably to extend the maturity date. The lender has also provided seven waivers relating to various transactions and obligations to provide financial information to the lender.

Letters of Credit

The Company has letters of credit ("LOC") with two financial institutions related to equipment projects, the royalty indemnification and certain other agreements. The following tables summarize the letters of credit outstanding, collateral, by type, and the related line items within the Consolidated Balance Sheets where the collateral related to the letters of credit is recorded:

	As of December 31, 2014			
(in thousands)	LOC Outstanding	Restricted Cash	Restricted cash, long-term	Investment securities, restricted, long-term
Contract performance - equipment systems	$7,247	$2,527	$4,721	$—
Royalty indemnification	4,050	—	4,050	—
Other	328	—	—	336
Total LOC outstanding	$11,625	$2,527	$8,771	$336

	As of December 31, 2013			
(in thousands)	LOC Outstanding	Restricted Cash	Restricted cash, long-term	Investment securities, restricted, long-term
Contract performance - equipment systems	$4,860	$—	$4,860	$—
Royalty indemnification	2,801	—	2,807	—
Other	328	—	—	332
Total LOC outstanding	$7,989	$—	$7,667	$332

Restricted balances may exceed the letters of credit outstanding due to interest income earned on the restricted balances.

The following tables summarizes the expiration periods of the letters of credit, based upon the ultimate maturity date of the letters of credit as of December 31, 2014:

	Expiration of Letters of Credit as of December 31, 2014			
(in thousands)	Less than 1 year	1-3 years	4-5 years	After 5 years
Letters of credit	$2,527	$5,048	$4,050	$—

Performance Guarantee on Equipment Systems

In the normal course of business related to ACI and DSI systems, the Company may guarantee certain performance thresholds during a discrete performance testing period that do not extend beyond six months from the initial test date, the commencement of which is determined by the customer. Performance thresholds include such matters as the achievement of a certain level of mercury removal and other emissions based upon the injection of a specified quantity of a qualified activated carbon or other chemical at a specified rate given other plant operating conditions, availability of equipment and electric power usage. In the event the equipment fails to perform as specified during the testing period, the Company may have an obligation to correct or replace the equipment. In the event the level of mercury removal is not achieved, the Company may have a “make right” obligation within the contract limits. As of December 31, 2014, the Company has never incurred a performance guarantee claim. If incurred, guarantees would be included within the Equipment sales cost of revenue line of the Consolidated Statements of Operations. The Company is currently working to modify and correct two performance guarantee issues related to EC systems that were installed during 2015. Resolution of these performance guarantees is not expected to result in a material adverse effect on the Company’s operating performance or liquidity in 2015 or beyond.

Purchase Obligations

As of December 31, 2014, the Company expects to pay purchase obligations totaling approximately $0.2 million in 2015 primarily for memberships to industry groups.

DOE Audits

Certain of the Company's completed and current contracts awarded by the DOE and related industry participants remain subject to adjustments as a result of future government audits. The Company's historical experience with these audits has not resulted in significant adverse adjustments to amounts previously received; however the audits for the years 2010 and later have not been finalized.

Operating Lease Obligations

The Company leases office, warehouse and laboratory space in Highlands Ranch, Colorado and in McKeesport, Pennsylvania under operating leases. As of December 31, 2014, the Company leased approximately 309 thousand square feet under approximately six leases. Original lease terms ranged from 3 to 7 years. Certain of these leases have options permitting renewals for additional periods. In addition to minimum fixed payments, a number of leases contain annual escalation clauses which are related to increases in the inflation index.

Annual minimum commitments under the leases as of December 31, 2014 are as follows:

Years Ending December 31,	Operating Lease Commitments
	(in thousands)
2015	$1,608
2016	1,476
2017	1,269
2018	981
2019	105
Thereafter	—
Total	$5,439

Rental expense incurred for the years ended are as follows:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Rent expense	$1,531	$871	$59

Subsequent to December 31, 2014, the Company entered into an agreement to terminate a lease agreement of approximately 50 thousand square feet. The Company did not incur lease termination costs in connection with this agreement. As a result, future minimum commitments under leases and annual rent expense will be reduced by $0.5 million and $0.2 million, respectively.

Notes Payable Subsequent to December 31, 2014

As disclosed in Note 10, the Company entered into a Credit Agreement for $15.0 million, which matures on April 22, 2016, subject to a three month extension, if certain conditions are met.

Note 16 - Defined Contributions Savings Plan

The Company has an employee retirement plan (the "401(k) Plan") that provides eligible employees of the Company an opportunity to accumulate retirement funds. The Company makes matching contributions to the 401(k) Plan in the form of cash and its common stock. The following table presents the amount the Company recognized as expense within the Payroll and benefits line item in the Consolidated Statements of Operations:

	Years Ended December 31,		
(in thousands)	2014	2013	2012
401(K) employer expense	$509	$625	$468

Note 17 - Income Taxes

The provision for income taxes consists of the following:

	Years Ended December 31,		
(in thousands, except for rate)	2014	2013	2012 (Restated)
Current portion of income tax expense:			
Federal	$—	$—	$—
State	296	463	14
	296	463	14
Deferred portion of income tax expense	—	—	—
Total income tax expense	$296	$463	$14
Effective tax rate	18 %	(3)%	— %

A reconciliation of expected federal income taxes on income from operations at statutory rates with the expense (benefit) for income taxes is as follows:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
	Amount	Amount	Amount
Federal statutory rate	$589	$(5,435)	$(4,590)
State income taxes, net of federal benefit	31	(1,077)	(354)
Disallowed compensation	721	—	—
Permanent differences	52	45	54
Tax credits	(25,607)	(14,727)	(16,392)
Valuation allowances	23,794	21,843	21,374
Changes in state effective rates	716	—	—
Other	—	(186)	(78)
Expense (Benefit) for the provision for income taxes	$296	$463	$14

Deferred income taxes are provided for the effects of temporary differences between the tax basis of an asset or liability and its reported amount in the accompanying Consolidated Balance Sheets. These temporary differences result in taxable or deductible amounts in future years. Details of the Company’s deferred tax assets and liabilities are summarized as follows:

(in thousands)	As of December 31, 2014	2013
Deferred tax assets		
Settlements	$9,177	$11,206
Deferred revenues and loss contract provisions	4,650	4,055
Employee related liabilities	3,643	1,411
Intangible assets	1,070	153
Equity method investments	7,507	8,235
Net operating loss carryforward	10,831	13,039
Tax credits	58,486	32,879
Deposits on equipment contracts	2,492	3,387
Other	1,105	859
Total deferred tax assets	98,961	75,224
Less valuation allowance	(98,203)	(74,409)
Net deferred tax assets	758	815
Less: Deferred tax liabilities		
Property and equipment and other	(758)	(815)
Total deferred tax liabilities	(758)	(815)
Net deferred tax assets (liabilities)	$—	$—

The Company assesses the available positive and negative evidence to determine if sufficient future taxable income will be generated to use the existing deferred tax assets. A significant piece of objective negative evidence evaluated was the cumulative loss incurred over the three-year period ended December 31, 2014. As of December 31, 2014 and 2013, the Company has recorded a full valuation allowance against the net deferred tax assets of $98.2 million and $74.4 million, respectively, to reflect the estimated amount of deferred tax assets that may not be realized. During 2014, the Company's valuation allowance increased by $23.8 million primarily due to increases in tax credits, offset by net decreases in other deferred tax assets.

The following table presents the approximate amount of federal and state net operating loss carryforwards and federal tax credit carryforwards available to reduce future taxable income, along with the respective range of years that the net operating loss and tax credit carryforwards would expire if not utilized:

(in thousands)	As of December 31, 2014	Beginning expiration year	Ending expiration year
Federal net operating loss carryforwards	$26,405	2031	2032
State net operating loss carryforwards	$43,621	2017	2034
Federal tax credit carryforwards	$58,486	2031	2034

The Company does not believe it has any significant uncertain tax positions. The Company specifically evaluated whether the installment sale treatment compared to lease treatment for tax purposes at CCS gives rise to an uncertain tax position. As this accounting related to a potential uncertain tax position would result in the Company recording a tax asset, no amount has been recorded. Accordingly, the Company did not record any adjustments or recognize interest expense for uncertain tax positions for the years ended December 31, 2014, 2013 and 2012. In the future, if uncertain tax positions arise, interest and penalties will be accrued and included in the Interest expense line item in the Consolidated Statements of Operations. Additionally, the Company does recognize interest expense related to tax treatment of RC facilities at CCS in the Interest expense line item in the Consolidated Statements of Operations. Additional information related to these interest amounts is included in Note 12.

The Company files income tax returns in the U.S. and in various states. The Company is no longer subject to U.S. federal examinations by tax authorities for years before 2012. The Company is generally no longer subject to State and local examinations by tax authorities for years before 2011.

Note 18 - Business Segment Information
Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by a company's chief operating decision maker ("CODM"), or a decision making group, in deciding how to allocate resources and in assessing financial performance. As of December 31, 2014, the Company's CODM was the Company's CEO and CFO, collectively, the CODM. The Company's operating and reportable segments are organized by products and services provided. Segments have been reorganized from prior periods due to changes within the Company's management structure and the manner in which the Company is operating the business. All prior periods have been conformed to the current year presentation.
The Company has four reportable segments: (1) Refined Coal ("RC"); (2) Emissions Control - Engineering and Technology Services ("EC - ETS"); (3) Emissions Control - Manufacturing ("EC - Manufacturing"); and (4) Research and Development ("R&D").
The business segment measurements provided to and evaluated by the CODM are computed in accordance with the principles listed below:

- The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except as described below.
- Segment revenue includes the Company's equity method earnings and losses from the Company's equity method investments. Segment revenue also includes the Company's royalty earnings from CCS.
- Segment operating income (loss) includes the Company's equity method earnings and losses from the Company's equity method investments and royalty earnings from CCS. However, segment operating income (loss) excludes Payroll and benefits, Rent and occupancy, Legal and professional fees, and General and administrative ("Corporate general and administrative expenses"), as well as depreciation and amortization expense, unless otherwise specifically attributable to a segment.
- Segment revenue includes Research and Development reimbursements.
- Items not included in consolidated operating income are excluded from segment operating income except for 453A interest and RCM6 interest expense, which is directly attributable to the RC segment.

The following table presents the Company's operating segment results for the years ended December 31, 2014, 2013 and 2012 (Restated). All assets are located in the U.S. and all significant customers are either U.S. companies or the U.S. Government.

(in thousands)	Years Ended December 31, 2014	2013	2012 (Restated)
Revenues:			
Refined Coal:			
Earnings from equity method investments	$42,712	$15,502	$813
Consulting services	665	1,330	3,255
Royalties, related party	6,410	2,505	1,446
	49,787	19,337	5,514
Emissions Control - Engineering Technology and Services:			
Equipment sales	11,327	3,499	7,496
Consulting services	2,576	3,304	4,111
Chemical and other	391	749	715
	14,294	7,552	12,322
Emissions Control - Manufacturing:			
Equipment sales	717	2,248	88
Consulting services	1,247	2,156	651
	1,964	4,404	739
Research and Development:	2,033	9,817	2,881
	2,033	9,817	2,881
Total segment reporting revenues	68,078	41,110	21,456
Adjustments to reconcile to reported revenues:			
Refined Coal:			
Earnings from equity method investments	(42,712)	(15,502)	(813)
Royalties, related party	(6,410)	(2,505)	(1,446)
	(49,122)	(18,007)	(2,259)
Research and Development:	(2,033)	(9,817)	(2,881)
Total reported revenues	$16,923	$13,286	$16,316
Segment reporting operating income (loss)			
Refined Coal	$42,094	$16,227	$1,759
Emissions Control - Engineering Technology and Services	(3,073)	(2,580)	(70)
Emissions Control - Manufacturing	(7,635)	(8,378)	(1,337)
Research and Development	(2,640)	(3,536)	(497)
Total segment operating income (loss)	$28,746	$1,733	$(145)

A reconciliation of reportable segment amounts to the Company's consolidated balances is as follows:

	Years Ended December 31,		
(in thousands)	2014	2013	2012 (Restated)
Segment income			
Total reported segment operating income (loss)	$28,746	$1,733	$(145)
Adjustments to reconcile to net loss attributable to Advanced Emissions Solutions, Inc.			
Corporate payroll and benefits	(12,621)	(10,898)	(7,450)
Corporate rent and occupancy	(694)	(593)	(484)
Corporate legal and professional fees	(9,514)	(2,563)	(2,243)
Corporate general and administrative	(3,980)	(2,961)	(2,803)
Corporate depreciation and amortization	(354)	(307)	(263)
Interest income	74	109	308
Other income (expense)	26	(44)	(35)
Income tax (expense) benefit	(296)	(463)	(14)
Net income (loss)	$1,387	$(15,987)	$(13,129)

Corporate general and administrative expenses include certain costs that benefit the business as a whole but are not directly related to one of our segments. Such costs include but are not limited to accounting and human resources staff, information systems costs, legal fees, facility costs, audit fees and corporate governance expenses.

Segment assets were as follows as of the dates presented:

	As of December 31,	
(in thousands)	2014	2013
Assets:		
Refined Coal	$21,322	$3,887
Emissions Control - Engineering Technology and Services	34,175	38,480
Emissions Control - Manufacturing	11,285	10,603
Research and Development	6,431	1,135
All Other and Corporate	20,486	19,419
Consolidated	$93,699	$73,524

During the fourth quarter of 2015 the Company realigned its operating segments into two reportable segments: (1) Refined Coal ("RC"); (2) Emissions Control - Engineering and Technology Services ("EC - ETS"). Beginning with the Company's 2015 Annual Report on Form 10-K, the Company will retroactively adjust all segment related disclosures.

Note 19 - Major Customers

Sales to unaffiliated customers who represent 10% or more of the Company's sales in any one year were as follows:

			Years Ended December 31,		
Customer	Revenue Type	Segment(s)	2014	2013	2012 (Restated)
A	Equipment sales, Consulting services	EC - ETS	37%	2%	5%
B	Equipment sales, Consulting services, Other	EC - ETS	24%	—%	2%
C	Equipment sales	EC - Manufacturing	1%	11%	—%
D	Consulting services	EC - Manufacturing	8%	12%	2%
E	Equipment sales	EC - ETS	—%	25%	7%
F	Equipment sales	EC - ETS	—%	—%	10%
G	Equipment sales, Consulting services	EC - ETS	1%	2%	22%

Note 20 - Quarterly Financial Results (unaudited)

Summarized quarterly results for the two years ended December 31, 2014 and December 31, 2013, respectively, are as follows:

	For the Quarter Ended			
(in thousands, except per share data)	December 31, 2014	September 30, 2014	June 30, 2014	March 31, 2014
Revenues	$3,693	$9,072	$3,175	$983
Cost of revenues, exclusive of operating expenses shown below	2,903	6,512	1,754	451
Other operating expenses	16,335	12,839	9,841	8,102
Operating loss	(15,545)	(10,279)	(8,420)	(7,570)
Earnings from equity method investments	20,693	5,603	9,791	6,625
Royalties, related party	2,154	2,275	849	1,132
Other income (expenses), net	(2,484)	(1,185)	(1,199)	(757)
Income (loss) before income tax expense	4,818	(3,586)	1,021	(570)
Income tax expense	141	113	29	13
Net income (loss)	$4,677	$(3,699)	$992	$(583)
Earnings (loss) per common share – basic	$0.21	$(0.17)	$0.05	$(0.03)
Earnings (loss) per common share – diluted	$0.21	$(0.17)	$0.05	$(0.03)
Weighted-average number of common shares outstanding (1)				
Basic	21,563	21,536	21,477	21,465
Diluted	21,947	21,536	22,035	21,465

(1) The number of shares and per share amounts have been retroactively restated to reflect the two-for-one stock split of the Company's common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014.

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(in thousands, except per share data)	For the Quarter Ended December 31, 2013	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
Revenues	$1,228	$3,470	$6,427	$2,161
Cost of revenues, exclusive of operating expenses shown below	758	5,970	4,482	2,458
Other operating expenses	9,442	7,206	7,363	7,865
Operating income (Loss)	(8,972)	(9,706)	(5,418)	(8,162)
Earnings from equity method investments	3,095	9,684	2,400	323
Royalties, related party	748	730	356	671
Other income (expenses), net	(603)	(341)	(250)	(79)
Income (loss) before income tax expense	(5,732)	367	(2,912)	(7,247)
Income tax expense	147	11	88	217
Net income (loss)	$(5,879)	$356	$(3,000)	$(7,464)
Earnings (loss) per common share – basic	$(0.29)	$0.02	$(0.15)	$(0.38)
Earnings (loss) per common share – diluted	$(0.29)	$0.02	$(0.15)	$(0.38)
Weighted-average number of common shares outstanding (1)				
Basic	20,594	19,937	19,916	19,899
Diluted	20,594	20,473	19,916	19,899

(1) The number of shares and per share amounts have been retroactively restated to reflect the two-for-one stock split of the Company's common stock, which was effected in the form of a common stock dividend distributed on March 14, 2014.

Amounts presented on a quarterly basis in the 2013 tables differ from amounts included in the Company's Form 10-Q filings related to the applicable periods due to amounts that have been restated for reasons described in Note 2 as well as specific information to the applicable quarters below.

The following is a description of the restatement adjustments and effect of the errors recorded by the Company on the previously issued 2013 Consolidated Balance Sheets and Consolidated Statements of Operations. As previously reported amounts in the below tables represent those reported in the Company's Form 10-Q's for the year ended December 31, 2013, adjusted to conform to current year presentation, as applicable.

A. Deconsolidation - These are adjustments necessary to properly reflect the Company's investment in CCS as an equity method investment.

B. Revenue and related cost of revenue - The total decrease to revenue consists of adjustments to account for equipment construction projects under the completed contract method (as discussed in Note 2), adjustments for contracts with the DOE and other parties that should be accounted for as cost share reimbursements, with all reimbursements and expenses being recorded in research and development expense rather than revenue and cost of revenue and adjustments to consulting service revenue to correct for the timing of revenue recognition and to appropriately recognize a portion of consulting service revenue from CCS that were previously eliminated when consolidating CCS. Individual revenue line items were also impacted by reclassifications between equipment revenue and consulting revenue. The decrease to cost of revenue consists of adjustments to account for equipment construction projects under the completed contract method adjustments related to warranties as well as the correction of costs associated with the DOE contracts, now included within research and development expense. The Company previously recorded a portion of the costs incurred on these contracts in cost of revenue and the balance in research and development expense. Additional adjustments were recorded to appropriately recognize costs for consulting services with CCS that were previously eliminated when consolidating CCS. Individual costs of revenue line items were also impacted by reclassifications between equipment cost of revenue and consulting cost of revenue. The following tables summarize the impact by quarter related to the revenue and cost of sales adjustments:

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Revenue

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Completed contract revenue recognition	$(11.6)	$(5.7)	$(7.0)
DOE and other parties adjustment	(4.2)	(2.7)	(1.4)
Consulting service timing adjustment	—	—	0.1
	$(15.8)	$(8.4)	$(8.3)

Cost of revenue

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Completed contract revenue recognition - equipment	$(5.2)	$(5.2)	$(3.7)
Equipment reclassifcation to consulting service	(0.3)	(0.3)	(0.2)
BCSI purchase accounting and other - equipment	—	0.1	(0.2)
Warranty adjustment - equipment	(0.3)	(0.2)	(0.2)
DOE and other parties adjustment	(4.8)	(2.5)	(1.2)
Consulting service reclassification from equipment and burden adjustment	0.3	0.3	0.2
	$(10.3)	$(7.8)	$(5.3)

C. Earnings (loss) in equity method investments and royalty earnings from equity method investment - CCS's equity structure includes Class B units that provide the holder with certain preferred returns on its investment. Historically, the Company did not properly account for the accretion of these returns and, as a result, the calculation of CCS's income attributable to the Company was overstated. This overstatement was partially offset by the recognition of equity earnings associated with cash distributions from CCS in excess of the Company's investment balance. The following table summarizes the impact by quarter related to these adjustments:

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
CCS Class B accretion	$(1.2)	$(1.2)	$(1.4)
Equity earnings in CCS	5.7	1.0	0.1
	$4.5	$(0.2)	$(1.3)

D. Litigation settlement and royalty indemnity expense - These represent adjustments necessary to properly account for the Royalty Award, as discussed in Note 2. The effect of this adjustment was an increase to litigation settlement expense in 2011 and a reduction of royalty expense in 2013.

E. Other - The Company identified other adjustments related to it's prior accounting as discussed below:

1. Adjustments impacting the Payroll and benefits line item included adjustments for allocation of labor burden, stock based compensation, accrued incentives, and other. The following table summarizes the impact by quarter related to these adjustments:

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Labor burden allocation adjustment	$—	$0.1	$(0.1)
Stock based compensation adjustments	—	0.2	—
Accrued incentive adjustments	—	(0.8)	0.4
Other	—	—	0.1
	$—	$(0.5)	$0.4

2. Adjustments related to the Company's 2012 acquisition of the assets of two related, privately held companies by BCSI, LLC, a wholly-owned subsidiary, of the Company and consultant obligation adjustment resulted in adjustments to Legal and professional fees. The following table summarizes the impact by quarter related to these adjustments:

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
BCSI acquisition	$0.2	$0.2	$0.2
Consultant obligation adjustment	0.1	0.2	—
	$0.3	$0.4	$0.2

3. Adjustments impacting the Depreciation and amortization expense line item resulted in the following impact by quarter:

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Depreciation and amortization	$0.1	$0.1	$0.1
	$0.1	$0.1	$0.1

4. As the Company previously consolidated CCS, royalty earnings were eliminated. Upon deconsolidation, the Company recognized these earnings and reclassified the amounts from Other income (expense) to Royalties, related party. The following table summarizes the impact by quarter related to these adjustments:

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Royalty, related party	$0.7	$0.4	$0.7
	$0.7	$0.4	$0.7

5. Adjustments to interest expense were due to 453A interest, offset by interest expense previously incorrectly recorded. The following table summarizes the impact by quarter related to these adjustments:

	For the Quarter Ended		
	September 30, 2013 (Restated)	June 30, 2013 (Restated)	March 31, 2013 (Restated)
(in millions)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
453A interest, net	$0.2	$—	$(0.1)
	$0.2	$—	$(0.1)

6. Other adjustments resulted in a net increase (decrease) to the previously recognized net loss of $0.1 million, $(0.1) million, $(0.2) million relating to the three months ended March 31, 2013, June 30, 2013, and September 30, 2013, respectively.

F. The impact of correcting the classification of certain previously reported cash and cash equivalent balances to investment securities and investment securities, restricted balances, as well as certain receivable, net balances to related party receivables, net.

G. The impact of correcting previously unrecorded expenses related to the research and development assets giving rise to the asset retirement obligation of $1.1 million.

The following tables present the effects of the restatements on the Company's quarterly Consolidated Balance Sheets as of March 31, 2013, June 30, 203 and September 30, 2013, respectively:

	Increase (Decrease) from Previously Reported As of March 31, 2013					
(in thousands)	As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
ASSETS						
Current assets:						
Cash and cash equivalents	$21,945	$ (7,286)	$ 14,659	$ (3,145)	F	$11,514
Receivables, net	15,659	(3,284)	12,375	(5,683)	B, F	6,692
Receivables, related parties, net	—	514	514	611	C	1,125
Investment securities	2,634	(2,634)	—	105	F	105
Investment securities, restricted	—	—	—	406	F	406
Costs in excess of billings on uncompleted contracts	—	—	—	594	B, E6	594
Prepaid expenses and other assets	2,119	(1,009)	1,110	(465)	E1, E2, E6	645
Total current assets	42,357	(13,699)	28,658	(7,577)		21,081
Property and equipment, net of accumulated depreciation	43,981	(38,310)	5,671	(153)	E2, E3	5,518
Investment securities, restricted, long-term	—	—	—	2,634	F	2,634
Equity method investments	2,173	5,600	7,773	(6,101)	C	1,672
Other assets	3,975	(25)	3,950	(2,658)	B, C, E2, E6	1,292
Total Assets	$92,486	$ (46,434)	$ 46,052	$ (13,855)		$32,197

(in thousands)	Increase (Decrease) from Previously Reported As of March 31, 2013					
	As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
LIABILITIES AND STOCKHOLDERS' DEFICIT						
Current liabilities:						
Accounts payable	$8,964	$ (3,837)	$ 5,127	$ (3,001)	B, E6	$2,126
Accounts payable, related parties	4,267	(4,267)	—	—		—
Accrued payroll and related liabilities	2,479	—	2,479	936	E1	3,415
Current portion of notes payable, related parties	564	—	564	(564)	E2	—
Deferred revenue and customer deposits	28,014	(28,014)	—	—		—
Billings in excess of costs on uncompleted contracts	4,850	—	4,850	1,133	B	5,983
Settlement and royalty indemnity obligation	3,179	—	3,179	1,453	D	4,632
Other current liabilities	704	3	707	1,873	E2, E5	2,580
Total current liabilities	53,021	(36,115)	16,906	1,830		18,736
Long-term portion of notes payable, related parties	2,162	—	2,162	(2,162)	E2	—
Settlement and royalty indemnification, long-term	2,500	—	2,500	25,804	D	28,304
Deferred revenue, long-term	13,259	(13,259)	—	—		—
Advance deposit, related party	—	9,269	9,269	—		9,269
Other long-term liabilities	1,334	(48)	1,286	2,994	B, E6, G	4,280
Total Liabilities	72,276	(40,153)	32,123	28,466		60,589
Commitments and contingencies (Note 15)						
Temporary equity - non-controlling interest subject to redemption	60,000	(60,000)	—	—		—
Stockholders' deficit:						
Preferred stock: par value of $.001 and no par value per share, respectively, 50,000,000 shares authorized, none outstanding	—	—	—	—		—
Common stock: par value of $.001 per share	20	—	20	—		20
Additional paid-in capital	64,408	30,000	94,408	(19,067)	C, E1, E6	75,341
Accumulated deficit	(81,933)	1,434	(80,499)	(23,254)	B, C, D, E, G	(103,753)
Total ADES stockholders' deficit	(17,505)	31,434	13,929	(42,321)		(28,392)
Non-controlling interest	(22,285)	22,285	—	—		—

Total stockholders’ deficit	(39,790)	53,719	13,929	(42,321)	(28,392)
Total Liabilities and Stockholders’ Deficit	$92,486	$ (46,434)	$ 46,052	$ (13,855)	$32,197

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	Increase (Decrease) from Previously Reported As of June 30, 2013					
(in thousands)	As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
ASSETS						
Current assets:						
Cash and cash equivalents	$12,289	$ (1,215)	$ 11,074	$ (3,148)	F	$7,926
Receivables, net	18,009	(2,638)	15,371	(9,339)	B, F	6,032
Receivables, related parties, net	—	293	293	601	C	894
Investment securities	3,148	(3,148)	—	105	F	105
Investment securities, restricted	—	—	—	406	F	406
Costs in excess of billings on uncompleted contracts	—	—	—	1,550	B, E6	1,550
Prepaid expenses and other assets	3,496	(1,870)	1,626	(663)	E1, E2, E6	963
Total current assets	36,942	(8,578)	28,364	(10,488)		17,876
Property and equipment, net of accumulated depreciation	43,551	(37,514)	6,037	(58)	E2, E3	5,979
Investment securities, restricted, long-term	—	—	—	2,637	F	2,637
Equity method investments	2,447	5,838	8,285	(6,338)	C	1,947
Other assets	4,047	(25)	4,022	(2,603)	B, C, E2, E6	1,419
Total Assets	$86,987	$ (40,279)	$ 46,708	$ (16,850)		$29,858

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(in thousands)	Increase (Decrease) from Previously Reported As of June 30, 2013 As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
LIABILITIES AND STOCKHOLDERS' DEFICIT						
Current liabilities:						
Accounts payable	$12,565	$ (1,962)	$ 10,603	$ (5,693)	B, E6	$4,910
Accounts payable, related parties	2,713	(2,713)	—	—		—
Accrued payroll and related liabilities	4,115	—	4,115	223	E1	4,338
Current portion of notes payable, related parties	570	—	570	(570)	E2	—
Deferred revenue and customer deposits	26,716	(26,716)	—	—		—
Billings in excess of costs on uncompleted contracts	3,642	—	3,642	1,721	B	5,363
Settlement and royalty indemnity obligation	3,176	—	3,176	1,333	D	4,509
Other current liabilities	1,020	3	1,023	1,724	E2, E5	2,747
Total current liabilities	54,517	(31,388)	23,129	(1,262)		21,867
Long-term portion of notes payable, related parties	2,017	—	2,017	(2,017)	E2	—
Settlement and royalty indemnification, long-term	—	—	—	25,248	D	25,248
Deferred revenue, long-term	11,218	(11,218)	—	—		—
Advance deposit, related party	—	9,233	9,233	(83)	E6	9,150
Other long-term liabilities	1,517	(50)	1,467	2,905	B, G	4,372
Total Liabilities	69,269	(33,423)	35,846	24,791		60,637
Commitments and contingencies (Note 15)						
Temporary equity - non-controlling interest subject to redemption	60,000	(60,000)	—	—		—
Stockholders' deficit:						
Preferred stock: par value of $.001 and no par value per share, respectively, 50,000,000 shares authorized, none outstanding	—	—	—	—		—
Common stock: par value of $.001 per share	20		20	—		20
Additional paid-in capital	64,774	30,000	94,774	(18,820)	C, E1, E6	75,954
Accumulated deficit	(85,112)	1,180	(83,932)	(22,821)	B, C, D, E, G	(106,753)
Total ADES stockholders' deficit	(20,318)	31,180	10,862	(41,641)		(30,779)
Non-controlling interest	(21,964)	21,964	—	—		—
Total stockholders' deficit	(42,282)	53,144	10,862	(41,641)		(30,779)

Total Liabilities and Stockholders' Deficit	$86,987	(40,279)	$ 46,708	$ (16,850)	$29,858

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	Increase (Decrease) from Previously Reported As of September 30, 2013					
(in thousands)	As previously reported	Deconsolidation Increase / (Decrease) (A)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
ASSETS						
Current assets:						
Cash and cash equivalents	$14,707	$ (4,669)	$ 10,038	$ (3,650)	F	$6,388
Receivables, net	37,087	(3,329)	33,758	(14,278)	B, F	19,480
Receivables, related parties, net	—	692	692	30	C	722
Investment securities	1,645	(1,645)	—	105	F	105
Investment securities, restricted	—	—	—	406	F	406
Costs in excess of billings on uncompleted contracts	—	—	—	3,277	B, E6	3,277
Prepaid expenses and other assets	3,011	(1,531)	1,480	(558)	E1, E2, E6	922
Total current assets	56,450	(10,482)	45,968	(14,668)		31,300
Restricted cash, long-term	—	—	—	2,004		2,004
Property and equipment, net of accumulated depreciation of $5,924 and $3,901, respectively	43,378	(37,446)	5,932	(213)	E2, E3	5,719
Investment securities, restricted, long-term	—	—	—	1,134	F	1,134
Equity method investments	2,494	1,329	3,823	(1,329)	C	2,494
Other assets	4,093	(25)	4,068	(2,597)	B, C, E2, E6	1,471
Total Assets	$106,415	$ (46,624)	$ 59,791	$ (15,669)		$44,122

LIABILITIES AND STOCKHOLDERS' DEFICIT						
Current liabilities:						
Accounts payable	$11,015	$(1,533)	$9,482	$(2,571)	B, E6	$6,911
Accounts payable, related parties	3,953	(3,953)	—	—		—
Accrued payroll and related liabilities	2,775	—	2,775	372	E1	3,147
Current portion of notes payable, related parties	570	—	570	(570)	E2	—
Deferred revenue and customer deposits	32,350	(32,350)	—	—		—
Billings in excess of costs on uncompleted contracts	17,448	—	17,448	(2,163)	B	15,285
Settlement and royalty indemnity obligation	2,937	—	2,937	1,415	D	4,352
Other current liabilities	555	3	558	5,848	E2, E5	6,406
Total current liabilities	71,603	(37,833)	33,770	2,331		36,101
Long-term portion of notes payable, related parties	1,877	—	1,877	(1,877)	E2	—
Settlement and royalty indemnification, long-term	—	—	—	24,729	D	24,729
Deferred revenue, long-term	17,235	(17,235)	—	—		—
Advance deposit, related party	—	8,907	8,907	—		8,907
Distributions in excess of investment	—	—	—	—		—
Other long-term liabilities	1,797	(68)	1,729	2,711	B, G	4,440
Total Liabilities	92,512	(46,229)	46,283	27,894		74,177
Commitments and contingencies (Note 15)						
Temporary equity - non-controlling interest subject to redemption	60,000	(60,000)	—	—		—
Stockholders' deficit:						
Preferred stock: par value of $.001 and no par value per share, respectively, 50,000,000 shares authorized, none outstanding	—	—	—	—		—
Common stock: par value of $.001 per share	20	—	20	—		20
Additional paid-in capital	65,469	30,000	95,469	(19,146)	C, E1, E6	76,323
Accumulated deficit	(83,521)	1,540	(81,981)	(24,417)	B, C, D, E, G	(106,398)
Total ADES stockholders' deficit	(18,032)	31,540	13,508	(43,563)		(30,055)
Non-controlling interest	(28,065)	28,065	—	—		—
Total stockholders' deficit	(46,097)	59,605	13,508	(43,563)		(30,055)
Total Liabilities and Stockholders' Deficit	$106,415	(46,624)	$59,791	$(15,669)		$44,122

The following tables present the effects of the restatements on the Company's quarterly Consolidated Statements of Operations for the quarters ended March 31, 2013, June 30, 203 and September 30, 2013, respectively:

	Three Months Ended March 31, 2013					
(in thousands, except per share data)	As previously reported	Deconsolidation Increase / (Decrease)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
Revenues:						
Equipment sales	$7,530	$ —	$ 7,530	$(6,929)	B	$601
Consulting services	2,421	247	2,668	(1,348)	B	1,320
Chemicals and other	58,363	(58,123)	240	—		240
Total revenues	68,314	(57,876)	10,438	(8,277)		2,161
Expenses:						
Equipment sales cost of revenue	6,004	—	6,004	(4,283)	B, E	1,721
Consulting services cost of revenue	1,399	247	1,646	(1,045)	B	601
Royalties cost of revenue	—	—	—	—		—
Other cost of revenue	51,675	(51,539)	136	—		136
Payroll and benefits	3,807	(429)	3,378	391	E1	3,769
Rent and occupancy	628	—	628	(101)	E6	527
Legal and professional fees	781	—	781	236	E2	1,017
General and administrative	1,715	(975)	740	—		740
Research and development	554	—	554	868	B, E6, G	1,422
Depreciation and amortization	1,445	(1,119)	326	64	E3	390
Total operating expenses	68,008	(53,815)	14,193	(3,870)		10,323
Operating income (loss)	306	(4,061)	(3,755)	(4,407)		(8,162)
Other income (expenses), net						
Earnings (loss) from equity method investments	323	1,339	1,662	(1,339)	C	323
Royalties, related party	—	—	—	671	E4	671
Interest income	16	40	56	(8)	E6	48
Interest expense	(383)	161	(222)	82	E5	(140)
Litigation settlement and royalty indemnity expense, net	(673)	—	(673)	673	D	—
Other income (expense)	54	671	725	(712)	C, E4	13
Total other income (expense), net	(663)	2,211	1,548	(633)		915
Loss before income tax expense	(357)	(1,850)	(2,207)	(5,040)		(7,247)
Income tax expense	—	—	—	217	E6	217
Net loss	(357)	(1,850)	(2,207)	(5,257)		(7,464)
Loss attributable to non-controlling interest	1,812	(1,812)	—	—		—
Net loss attributable to ADES	$(2,169)	$ (38)	$ (2,207)	$(5,257)		$(7,464)
Loss per common share – basic and diluted, attributable to ADES	$(0.11)					$(0.38)
Weighted-average number of common shares outstanding - basic	20,100					19,899
Weighted-average number of common shares outstanding -	20,100					19,899

diluted

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(in thousands, except per share data)	Three Months Ended June 30, 2013 As previously reported	Deconsolidation Increase / (Decrease)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments		As Restated
Revenues:						
Equipment sales	$9,913	$ —	$ 9,913	$(5,783)	B	$4,130
Consulting services	4,750	130	4,880	(2,662)	B	2,218
Chemicals and other	44,267	(44,188)	79	—		79
Total revenues	58,930	(44,058)	14,872	(8,445)		6,427
Expenses:						
Equipment sales cost of revenue	8,789	—	8,789	(5,622)	B, E	3,167
Consulting services cost of revenue	3,340	130	3,470	(2,206)	B	1,264
Royalties cost of revenue	—	—	—	—		—
Other cost of revenue	36,261	(36,210)	51	—		51
Payroll and benefits	4,536	(495)	4,041	(463)	E1	3,578
Rent and occupancy	701	—	701	(137)	E6	564
Legal and professional fees	885	—	885	431	E2	1,316
General and administrative	1,717	(654)	1,063	(63)	E6	1,000
Research and development	790	—	790	(254)	B, G	536
Depreciation and amortization	1,360	(1,107)	253	116	E3	369
Total operating expenses	58,379	(38,336)	20,043	(8,198)		11,845
Operating income (loss)	551	(5,722)	(5,171)	(247)		(5,418)
Other income (expenses), net						
Earnings (loss) from equity method investments	274	2,362	2,636	(236)	C	2,400
Royalties, related party	—	—	—	356	E4	356
Interest income	25	—	25	—		25
Interest expense	(248)	20	(228)	6	E5	(222)
Litigation settlement and royalty indemnity expense, net	(676)	—	(676)	676	D	—
Other income (expense)	91	107	198	(251)	C, E4	(53)
Total other income (expense), net	(534)	2,489	1,955	551		2,506
Loss before income tax expense	17	(3,233)	(3,216)	304		(2,912)
Income tax expense	—	—	—	88	E6	88
Net loss	17	(3,233)	(3,216)	216		(3,000)
Loss attributable to non-controlling interest	3,195	(3,195)	—	—		—
Net loss attributable to ADES	$(3,178)	$ (38)	$ (3,216)	$216		$(3,000)
Loss per common share – basic and diluted, attributable to ADES	$(0.16)					$(0.15)
Weighted-average number of common shares outstanding - basic	20,152					19,916
Weighted-average number of common shares outstanding - diluted	20,152					19,916

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	Three Months Ended September 30, 2013				
(in thousands, except per share data)	As previously reported	Deconsolidation Increase / (Decrease)	As previously reported, adjusted for deconsolidation	Other Restatement Adjustments	As Restated
Revenues:					
Equipment sales	$12,094	$ —	$ 12,094	$(11,537) B	$557
Consulting services	6,399	499	6,898	(4,229) B	2,669
Chemicals and other	56,093	(55,839)	254	(10)	244
Total revenues	74,586	(55,340)	19,246	(15,776)	3,470
Expenses:					
Equipment sales cost of revenue	9,842	—	9,842	(5,797) B, E	4,045
Consulting services cost of revenue	5,738	499	6,237	(4,458) B	1,779
Royalties cost of revenue	—	—	—	—	—
Other cost of revenue	39,667	(39,514)	153	(7) B	146
Payroll and benefits	4,253	(822)	3,431	33 E1	3,464
Rent and occupancy	737	—	737	(217) E6	520
Legal and professional fees	637	—	637	339 E2	976
General and administrative	3,294	(2,491)	803	36 E6	839
Research and development	1,206	—	1,206	(233) B, E6, G	973
Depreciation and amortization	1,446	(1,122)	324	110 E3	434
Total operating expenses	66,820	(43,450)	23,370	(10,194)	13,176
Operating income (loss)	7,766	(11,890)	(4,124)	(5,582)	(9,706)
Other income (expenses), net					
Earnings (loss) from equity method investments	547	4,628	5,175	4,509 C	9,684
Royalties, related party	—	—	—	730 E4	730
Interest income	21	—	21	—	21
Interest expense	(194)	(21)	(215)	(158) E5	(373)
Litigation settlement and royalty indemnity expense, net	(437)	—	(437)	437 D	—
Other income (expense)	150	980	1,130	(1,119) C, E4	11
Total other income (expense), net	87	5,587	5,674	4,399	10,073
Loss before income tax expense	7,853	(6,303)	1,550	(1,183)	367
Income tax expense	—	—	—	11 E6	11
Net loss	7,853	(6,303)	1,550	(1,194)	356
Loss attributable to non-controlling interest	6,262	(6,262)	—	—	—
Net income attributable to ADES	$1,591	$ (41)	$ 1,550	$(1,194)	$356
Earnings per common share – basic	$0.08				$0.02
Earnings per common share – diluted	$0.08				$0.02
Weighted-average number of common shares outstanding - basic	20,220				19,937
Weighted-average number of common shares outstanding -	20,556				20,473

diluted

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Note 21 - Reorganization

At ADA's 2013 Annual Meeting of Shareholders, its shareholders approved a proposal to reorganize the Company. Effective July 1, 2013, ADES replaced ADA as the publicly-held corporation.

As a result of the Reorganization:

- Each outstanding share of ADA's common stock automatically converted into one share of common stock of ADES and the shareholders of ADA became stockholders of ADES on a one-for-one basis, holding the same number of shares in and the same ownership percentage of ADES after the reorganization as they held in and of ADA prior to the reorganization.
- ADES's Second Amended and Restated Certificate of Incorporation authorizes the issuance of 100,000,000 shares of common stock, par value per share of $0.001 and 50,000,000 shares of preferred stock, par value per share of $0.001. The additional authorized shares of common stock enable the Company to issue additional common stock to raise capital expeditiously and economically for its ongoing operational needs and could be used for other purposes when the Board of Directors and management believe that such issuance is appropriate.
- ADA became a wholly-owned subsidiary of ADES.
- All direct subsidiaries of ADA became indirect subsidiaries of ADES.
- Each outstanding option to acquire shares of ADA's common stock became an option to acquire an identical number of shares of ADES's common stock with substantially the same terms and conditions as before the reorganization.
- Each outstanding PSU, which prior to the reorganization represented the right to receive shares of common stock of ADA, became a PSU with the right to receive an identical number of shares of ADES's common stock with substantially the same terms and conditions as before the reorganization.
- The management and business operations of ADA did not change. Certain executive officers of ADA are also executive officers of ADES. We believe this simplified top-level management structure best serves ADES and allows for continued growth.
- The publicly traded company became subject to Delaware law.
- ADES's common stock became listed on the NASDAQ under "ADES", ADA's previous symbol, and ADA's stock ceased trading on the NASDAQ. The reorganization into a holding company structure is treated as a merger of entities under common control for accounting purposes.
- The primary objectives of the Reorganization into a Delaware holding company structure include:
- to better align our corporate structure with our business operations;
- to provide us with greater strategic, business and administrative flexibility, which may allow us to acquire or form other businesses, if and when appropriate and feasible, that may be owned and operated by us, but which could be separate from our current businesses; and
- to take advantage of the benefits of Delaware corporate law.

There was no impact on net income (loss), comprehensive income or earnings per share as a result of the reorganization.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

(a) Dismissal and resignation of independent registered public accounting firms

As previously disclosed on Form 8-K, on March 19, 2013, the Audit Committee of the Company notified EKS&H LLLP ("EKS&H") upon completion of the 2012 audit engagement and the filing of the Company's Form 10-K for the year ended December 31, 2012, EKS&H would be dismissed as the Company's independent registered public accounting firm. The decision to change accounting firms was approved by the Company's Audit Committee. On March 18, 2013, EKS&H completed its audit services for the Company for the fiscal year ended December 31, 2012.

The reports of EKS&H on the Company's consolidated financial statements as of and for the years ended December 31, 2012 and 2011 did not contain an adverse opinion or a disclaimer of opinion, and were not qualified or modified as to uncertainty, audit scope or accounting principles, except for the following material weaknesses related to the Company's internal control over financial reporting as of December 31, 2011:

- The Company did not maintain an effective control environment, as evidenced by not utilizing appropriate personnel or consultants qualified to review complex, non-routine business transactions that require additional review and impact decisions requiring accounting treatment, financial statement presentation and disclosure; and
- The Company did not establish adequate criteria to assess positive and negative evidence over the establishment and maintenance of a valuation allowance against deferred tax assets and an appropriate review process over the inputs and conclusions from this assessment was not in place.

During the years ended December 31, 2012 and 2011, and through March 22, 2013, there were no (a) "disagreements" (as that term is defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) with EKS&H on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to EKSH's satisfaction, would have caused EKS&H to make reference to the subject matter thereof in connection with its reports for such years; or (b) "reportable events" (as that term is described in Item 304(a)(1)(v) of Regulation S-K), except for the material weaknesses described above.

As previously disclosed on Form 8-K, on March 19, 2013, the Audit Committee engaged KPMG LLP ("KPMG") as the Company's new independent registered public accounting firm beginning with fiscal year 2013. On July 18, 2014, the Audit Committee approved the engagement of KPMG to re-audit the years ended December 31, 2011 and 2012.

As previously disclosed on Form 8-K, KPMG notified the Company on January 23, 2015 that it was resigning as the Company's independent registered public accounting firm and identified the following material weaknesses:

- inadequate management oversight and monitoring of the Company's internal controls over financial reporting;
- inadequate accounting resources, as the Company does not have a sufficient number of accounting personnel with appropriate technical accounting or financial reporting experience; and
- additional material weaknesses related to the Company's restatement adjustments not finalized at the time of KPMG's resignation.

Additionally, KPMG expressed that it conveyed to management and the Audit Committee on multiple occasions its concern that there was an inappropriate tone at the top, discontent with the Company's timeliness and responsiveness to its requests for information and inability to determine whether management has made available all financial records and related data. The Audit Committee and management recall KPMG expressing concerns with the tone at the top and their ability to rely on management's representations, only during the first half of 2014 and immediately prior to KPMG's resignation. During KPMG's engagement and subsequent to its resignation, the Company made significant changes in its key management and accounting personnel, conducted a thorough evaluation of all accounting matters, and resolved all issues that were open at the time of KPMG's resignation with the exception of the currently unremediated internal weaknesses described in Item 9A.

(b) New independent registered public accounting firm

Effective as of June 12, 2015, the Audit Committee of the Company’s Board of Directors approved the engagement of Hein & Associates LLP (“Hein”) to serve as its new independent registered public accounting firm to audit the Company’s financial statements for the fiscal years ended December 31, 2013, 2014 and 2015 and to re-audit the Company’s financial statements for the fiscal years ended December 31, 2011 and 2012. During the period from May 11, 2015 through June 5, 2015, Hein reviewed the Company’s accounting records in order to determine if it should proceed with audit acceptance. During this period, Hein was provided access to the Company’s accounting records regarding matters identified in the Company's Current Report on Form 8-K filed on January 29, 2015.

During the fiscal years ended December 31, 2012, 2013 and 2014, and through June 12, 2015, neither the Company nor anyone acting on its behalf consulted with Hein regarding either:

(i) the application of accounting principles to any specified transaction, either completed or proposed, or the type of audit opinion that might be entered on the Company's financial statements, nor did Hein provide written or oral advice to the Company that Hein concluded was an important factor considered by the Company in reaching a decision as to the accounting, auditing, or financial reporting issue; or

(ii) any matter that was either the subject of a "disagreement" (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) or a "reportable event" (as defined in Item 304(a)(1)(v) of Regulation S-K).

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision of the Chief Executive Officer and the Chief Financial Officer, has evaluated the effectiveness of disclosure controls and procedures as of December 31, 2014, which is the end of the period covered by this Form 10-K.

Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2014, the disclosure controls and procedures to ensure that information required to be disclosed by us, including our consolidated subsidiaries, in the reports we file or submit under the Securities Exchange Act of 1934 as amended (the "Exchange Act"), is recorded, processed, summarized and reported, as applicable, within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that information required to be disclosed by us in the reports that we file or submit is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure were not effective due to material weaknesses described below in Management's Report on Internal Control over Financial Reporting.

Company management has thoroughly evaluated the reasons KPMG provided in support of its resignation as the Company's independent registered public accounting firm and has no current evidence to support that those concerns are currently valid except for the material weaknesses included within Item 9. Notwithstanding the ineffective disclosure controls and procedures, the material weaknesses discussed below, and the filings that will not be made or were not timely filed, management has concluded that the consolidated financial statements included in this Form 10-K fairly present, in all material respects, the Company's financial position, results of operations and cash flows for the periods presented in conformity with accounting principles generally accepted in the United States. This conclusion is supported by the numerous steps that the Company has taken as more fully described below, to assure the accuracy and reliability of the financial information included herein.

Management's Report on Internal Control Over Financial Reporting

Our Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that:

(1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;

(2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of our management and directors; and

(3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2014, utilizing the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in

Internal Control-Integrated Framework (2013 framework). Management has concluded that the control environment was not effective due to the following material weaknesses as of December 31, 2014. The bullet points under each of the material weaknesses, in the aggregate, resulted in the identified material weakness but each, individually, would also have been sufficient to result in the material weakness:

Ineffective risk assessment, control environment and monitoring to support the financial reporting process
The Company's control environment did not sufficiently promote effective internal control over financial reporting. This material weakness also contributed to the other two material weaknesses described below. Principle contributing factors included insufficient qualified personnel with appropriate expertise to perform accounting functions necessary to ensure preparation of financial statements in accordance with generally accepted accounting principles, and inadequate policies and procedures to enable the timely preparation of reliable financial statements, as described more fully below:

- We had insufficient oversight and monitoring of the development and performance of internal control over financial reporting. Standards, processes, and structures were not adequate to enable management or personnel to completely understand and carry out their internal control responsibilities.
- We had insufficient processes designed to identify risks to the achievement of financial reporting objectives at all levels of the entity (e.g., subsidiary, segment, operating unit and functional levels).
- We had not fully implemented policies, procedures and related control activities designed to mitigate risks to the achievement of financial reporting objectives.
- We had not fully implemented communication processes designed to allow all personnel and third parties to understand and carry out their internal control responsibilities and our information systems did not contain and generate information that was of sufficient quality to support the effective operation of controls.
- Certain of the Company's evaluators performing ongoing and separate evaluations of the controls had insufficient knowledge to effectively understand the evaluation requirements. The level of staffing, training and specialized skills of the people performing certain monitoring functions was not adequate given the environment. The ongoing evaluations were not integrated into the business processes and did not adjust to changing conditions.
- We did not maintain effective disclosure controls and procedures allowing the Company to prepare disclosures in the time frame prescribed for financial reporting by the SEC.

Insufficient technical accounting expertise, inadequate policies and procedures related to accounting, human resources and vendor management matters, and inadequate management review in the financial reporting process

The Company did not develop or implement adequate policies and procedures, nor did it have sufficient technical accounting expertise, to address both routine and complex accounting matters. In addition, the Company did not maintain policies and procedures to ensure adequate management review of information supporting its financial statements. Specifically, the Company identified the following factors relating to the preparation of its financial statements:

- We did not have a sufficient number of qualified personnel with the requisite level of technical expertise to effectively analyze, review and conclude upon technical accounting matters.
- We did not maintain policies and procedures over the selection and application of appropriate accounting policies, or the assessment of the appropriate accounting treatment for routine and non-routine transactions.
- We did not maintain adequate policies and procedures that provided for timely and effective management review of information supporting our financial statements prior to their issuance.
- We did not maintain effective controls over the monitoring and review of general ledger accounts. Account reconciliations and analysis were not performed at an appropriate level of detail and reconciling items were not resolved and adjusted on a timely basis.

Ineffective information technology (IT) general controls. Ineffective process to manage change or appropriately restrict access to the information technology environment and critical financial applications

The Company did not maintain effective information technology general controls which are required to support automated controls and IT functionality, therefore, automated controls and IT functionality were deemed ineffective for the same period under audit. Specifically, the Company identified the following factors relating to the information technology general controls.

- We had inappropriate logical access rights assigned to information technology and accounting personnel related to key financial applications and systems which created segregation of duties violations.
- We did not have sufficient processes related to periodic reviews of logical access to key financial applications and systems.

- We had ineffective processes to identify and manage changes made to the key financial applications and systems.
- We did not have adequate processes for provisioning or revoking access to key financial applications and systems.
- We had inadequate oversight of third parties providing IT support services.

Based on the results of its evaluation, the Company's management concluded that as of December 31, 2014, the Company's internal controls over financial reporting were not effective.

The Company's internal control over financial reporting as of December 31, 2014 has been audited by Hein & Associates LLP, the Company's independent registered public accounting firm, as stated in their attestation report which is contained below.

Remediation efforts related to the Material Weaknesses

We have implemented and are continuing to implement numerous changes in an ongoing effort to remediate the above described material weaknesses in our internal controls over financial reporting, including, but not limited to the following matters:

- We added key personnel including: 1) new Chief Financial Officer in September 2014 who was promoted to our Chief Executive Officer in April 2015; 2) new Chief Financial Officer in June 2015; 3) new Vice President Risk, Process and Controls in June 2015; 4) new Director of SEC Reporting and Technical Accounting in January 2015; 5) new Vice President Information Technology in November 2014; 6) completely restructured our accounting and finance departments, including the addition of employee and consultant resources with technical accounting, finance and information technology experience.
- We requested our previous Audit Committee Chairman to provide professional services to the Company, including leading the Re-audit process until a new Chief Financial Officer could be appointed. As a result of that engagement, the Company appointed a new member of the Audit Committee who was later appointed Chairman, effective May 2014.
- We engaged external resources to supplement internal resources to address technical accounting and information technology matters, as well as to assist with the Re-audit and preparation of prior year financial statements.
- We have conducted an entity level risk assessment, established a Sarbanes-Oxley compliance roadmap based on the COSO 2013 Internal Control over Financial Reporting Framework and are in the process of designing and implementing related controls.
- We conducted a review of logical access rights and responsibilities related to key financial applications and systems and have implemented appropriate segregation of duties in this area.
- We are in the process of creating and implementing accounting and information technology policies and procedures, including written technical accounting memos required under GAAP.
- We are designing additional controls around identification, documentation and application of technical accounting guidance.

Although we are currently in the process of implementing our remediation plans, as we performed substantive validation procedures on the financial statement balances to obtain a reasonable level of assurance on the reported balances, our management team was able to obtain a reasonable level of assurance that data and corresponding disclosures were accurate and complete. As a result, we believe that the consolidated financial statements included in this Form 10-K for the year ended December 31, 2014 fairly present, in all material respects, our financial position, results of operations and cash flows for the periods presented in conformity with GAAP.

Changes in Internal Control Over Financial Reporting

As described above, we are in the process of implementing our remediation plans with respect to the above identified material weaknesses.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Advanced Emissions Solutions, Inc. and Subsidiaries

We have audited Advanced Emissions Solutions, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Advanced Emissions Solutions, Inc. and subsidiaries' management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (c) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management's assessment (The bullet points under each of the material weaknesses, in the aggregate, resulted in the identified material weakness but each, individually, would also have been sufficient to result in the material weakness):

Ineffective risk assessment, control environment and monitoring to support the financial reporting process
The Company's control environment did not sufficiently promote effective internal control over financial reporting. This material weakness also contributed to the other two material weaknesses described below. Principle contributing factors included insufficient qualified personnel with appropriate expertise to perform accounting functions necessary to ensure preparation of financial statements in accordance with generally accepted accounting principles, and inadequate policies and procedures to enable the timely preparation of reliable financial statements, as described more

fully below:

The Company had insufficient oversight and monitoring of the development and performance of internal control over financial reporting. Standards, processes, and structures were not adequate to enable management or personnel to completely understand and carry out their internal control responsibilities.
The Company had insufficient processes designed to identify risks to the achievement of financial reporting objectives at all levels of the entity (e.g., subsidiary, segment, operating unit and functional levels).
The Company had not fully implemented policies, procedures and related control activities designed to mitigate risks to the achievement of financial reporting objectives.
The Company had not fully implemented communication processes designed to allow all personnel and third parties to understand and carry out their internal control responsibilities and their information systems did not contain and generate information that was of sufficient quality to support the effective operation of controls.

To the Board of Directors and Stockholders
Advanced Emissions Solutions, Inc. and Subsidiaries
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Certain of the Company's evaluators performing ongoing and separate evaluations of the controls had insufficient knowledge to effectively understand the evaluation requirements. The level of staffing, training and specialized skills of the people performing certain monitoring functions was not adequate given the environment. The ongoing evaluations were not integrated into the business processes and did not adjust to changing conditions.

The Company did not maintain effective disclosure controls and procedures allowing the Company to prepare disclosures in the time frame prescribed for financial reporting by the SEC.

Insufficient technical accounting expertise, inadequate policies and procedures related to accounting, human resources and vendor management matters, and inadequate management review in the financial reporting process

The Company did not develop or implement adequate policies and procedures, nor did it have sufficient technical accounting expertise, to address both routine and complex accounting matters. In addition, the Company did not maintain policies and procedures to ensure adequate management review of information supporting its financial statements. Specifically, the following factors relating to the preparation of its financial statements were identified:

The Company did not have a sufficient number of qualified personnel with the requisite level of technical expertise to effectively analyze, review and conclude upon technical accounting matters.
The Company did not maintain policies and procedures over the selection and application of appropriate accounting policies, or the assessment of the appropriate accounting treatment for routine and non-routine transactions.
The Company did not maintain adequate policies and procedures that provided for timely and effective management review of information supporting the financial statements prior to their issuance.
The Company did not maintain effective controls over the monitoring and review of general ledger accounts. Account reconciliations and analysis were not performed at an appropriate level of detail and reconciling items were not resolved and adjusted on a timely basis.

Ineffective information technology (IT) general controls. Ineffective process to manage change or appropriately restrict access to the information technology environment and critical financial applications

The Company did not maintain effective information technology general controls which are required to support automated controls and IT functionality, therefore, automated controls and IT functionality were deemed ineffective for the same period under audit. Specifically, the following factors relating to the information technology general controls were identified:

The Company had inappropriate logical access rights assigned to information technology and accounting personnel related to key financial applications and systems which created segregation of duties violations.
The Company did not have sufficient processes related to periodic reviews of logical access to key financial applications and systems.
The Company had ineffective processes to identify and manage changes made to the key financial applications and systems.
The Company did not have adequate processes for provisioning or revoking access to key financial applications and systems.
The Company had inadequate oversight of third parties providing IT support services.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2014 financial statements, and this report does not affect our report dated February 29, 2016 on those financial statements.

In our opinion, because of the effect of the material weaknesses described above on the achievement of the objectives of the control criteria, Advanced Emissions Solutions, Inc. and subsidiaries has not maintained effective internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We do not express an opinion or any other form of assurance on management’s statements referring to any corrective actions taken by the Company after the date of management’s assessment.

To the Board of Directors and Stockholders
Advanced Emissions Solutions, Inc. and Subsidiaries
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We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Advanced Emissions Solutions, Inc. and subsidiaries as of December 31, 2014 and 2013, and the related consolidated statements of operations, stockholders' deficit, and cash flows for each of the three years in the period ended December 31, 2014 and our report dated February 29, 2016 expressed an unqualified opinion.

/s/ Hein & Associates LLP

Denver, Colorado
February 29, 2016

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Item 9B. Other Information
None.

PART III
Item 10. Directors, Executive Officers, and Corporate Governance

On July 1, 2013, ADA-ES, Inc., a Colorado corporation (“ADA”) reorganized into a holding company structure pursuant to that certain Agreement and Plan of Merger, dated as of March 25, 2013 (the “Reorganization Agreement”), that had previously been entered into by and among ADA, ADA Merger Corp., a Colorado corporation (“MergerCo”), and Advanced Emissions Solutions, Inc., a Delaware corporation (“ADES” or the “Company”). Pursuant to the Reorganization Agreement, MergerCo, which was a wholly owned subsidiary of ADES, merged with and into ADA, with ADA as the surviving corporation, resulting in ADES becoming the publicly held company with ADA as a wholly owned subsidiary (collectively, with the other transactions contemplated by the Reorganization Agreement, the “Reorganization”). At the ADA Annual Meeting of Shareholders held on June 13, 2013, at which the Reorganization was approved, the shareholders elected nine directors, Kim B. Clarke, Michael D. Durham, Alan Bradley Gabbard, Derek C. Johnson, W. Phillip Marcum, Mark H. McKinnies, Robert E. Shanklin, Jeffrey C. Smith and Richard J. Swanson.

In August 2013, Mr. Shanklin resigned as a director and Mr. Paul Lang was appointed in his place, pursuant to the Subscription and Investment Agreement with Arch Coal, Inc. (see footnote (1) to Mr. Lang’s information in the table below describing the agreement in more detail). In May 2014, the Board increased the size of the board from nine to ten directors and appointed J. Taylor Simonton to fill the vacancy. In June 2014, Mr. Swanson retired from the Board, and on July 23, 2014, the board increased its size to eleven directors and appointed Christopher S. Shackelton and L. Spencer Wells to the Board. Subsequently, on August 26, 2014, Mr. McKinnies, who was our Chief Financial Officer (“CFO”) and a director, retired as CFO and resigned from the Board. Following Mr. McKinnies’ resignation from the Board, the number of directors was reduced to ten on November 19, 2014. Dr. Durham, who was our Company's then Chief Executive Officer ("CEO"), resigned from the Board effective April 1, 2015 and retired from ADES on April 30, 2015. The number of directors was reduced to nine on April 1, 2015. On May 31, 2015, Mr. Smith retired from the Board and L. Heath Sampson, ADES’ President and new CEO, was appointed to the Board effective June 1, 2015. Additional description of these events is included below in the descriptions of our officers and directors.

We did not hold an Annual Meeting of Stockholders in 2014 or 2015. Ms. Clarke and Messrs. Gabbard, Johnson, Lang, Marcum, Sampson, Shackelton, Simonton and Wells will continue to serve until the earlier of the next Annual Meeting of Stockholders, which is expected to be held in 2016, or their retirement, resignation or removal.
The Nominating and Governance Committee of the Board seeks directors with strong reputations and experience in areas relevant to our strategy and operations, such as mining, environmental and chemical technologies, government regulation and relations and supply chain management, as well as overall business acumen and experience in financial matters. Each of our current directors holds or has held senior executive positions in complex organizations and has operating experience that meets this objective, as described below. In these positions, the directors have also gained experience in core management skills, such as strategic and financial planning, public company financial reporting, corporate governance, executive compensation, risk management and leadership development. The Nominating and Governance Committee also believes that each of the director has other key attributes that are critical to the composition of an effective Board: integrity and demonstrated impeccable ethical standards, sound judgment, analytical skills, the ability to work together in a constructive and collaborative fashion and the commitment to devote significant time and energy to service on the Board and its Committees.

Directors of the Registrant

The Company's members of the Board of Directors (the "Board") as of the date of this filing, are as follows:

Name	Age	Position and Offices	Director Since	No. of Years as a Director
Kim B. Clarke	60	Director, Chair of Compensation Committee and Member of Nominating and Governance Committee	2013	2+
A. Bradley Gabbard	61	Director, Member of the Finance Committee, Chief Financial Officer	2012	3+
Derek C. Johnson	54	Director, Chair of Nominating and Governance Committee and Member of Audit Committee and Finance Committee	2006	9+
Paul A. Lang	55	Director, Member of Audit Committee and Nominating and Governance Committee	2013	2+
W. Philip Marcum	71	Director, Chairman of the Board of Directors, Member of Nominating and Governance Committee and Finance Committee	2008	7+
L. Heath Sampson	45	Director, Member of the Finance Committee and Stock Committee, Chief Executive Officer	2015	Less than 1 Year
Christopher S. Shackelton	36	Director, Chair of Finance Committee	2014	1+
J. Taylor Simonton	71	Director, Chair of Audit Committee and Member of Stock Committee	2014	1+
L. Spencer Wells	45	Director, Member of Finance Committee	2014	1+

(1) Other than as set forth with respect to Mr. Lang, there are no arrangements or understandings between any directors or executive officers and any other person or persons pursuant to which they were selected as directors or executive officers. There are no family relationships, as defined in Item 401 of Regulation S-K, between any of the directors named above.

The Company's members of the Board of Directors during fiscal years 2013 and 2014 but whom no longer serve are as follows:

Name	Position and Offices	Director Term
Robert N. Caruso	Former Director, Chairman of Compensation Committee, Member of Nominating and Governance Committee	2006-2013
Michael D. Durham	Former President, Chief Executive Officer, Member of Stock Committee and Director	2003-2015
Ronald B. Johnson	Former Director, Member of the Audit Committee and Compensation Committee	2003-2013
Mark H. McKinnies	Former Director, Senior Vice President, Chief Financial Officer and Secretary	2003-2014
Jeffery C. Smith	Former Director, Chairman of the Board of Directors, Member of Compensation Committee and Nominating and Governance Committee	2003-2015
Richard J. Swanson	Former Director, Chairman of the Audit Committee, Member of Compensation Committee	2006-2014

The specific experience, qualifications and background of each current director follows:

Kim B. Clarke served as the Senior Vice President, Administration ("SVP") and Chief People Officer ("CPO") of Key Energy Services, Inc. (NYSE: KEG) from January 2006 through February 26, 2016. Her experience also includes profit and loss responsibility for the Fluid Services business unit and leadership of the Business Development, Marketing and Sales organizations. She was Vice President Human Resources from 2004 through 2006. Prior to Key

Energy Services, Inc., she served as the Vice President of Human Resources of GC Services from 1999 to 2004 and Vice President of Human Resources for Browning Ferris Industries from 1992 to 1999. Ms. Clarke received a B.S. degree in human resources from the University of Houston in 1982 and completed the Director Development Program at the Kellogg School of Management at Northwestern University. She previously served as Chairperson of the University of Houston College of Technology Dean's Board of Advisors.

Director Qualifications:

- Leadership Experience - Senior Vice President responsible for Human Resources, Safety, Information Technology, Business Development, Sales and Marketing; as well as profit and loss responsibility for the Fluid Services Business Unit. Vice President of Human Resources of GC Services and First National Bank in Houston, Texas; Vice President of Human Resources of Browning Ferris Industries (BFI); Director Development Program at the Kellogg School of Management at Northwestern University.
- Industry Experience -36 years of experience in a variety of industries including waste hauling, call centers, banking, and oil field services. Experience includes international, mergers and acquisitions.

A. Bradley Gabbard has served as the Chief Financial Officer of the Company since June 12, 2015. Prior to his current role, Mr. Gabbard served as a director of the Company since October 2012 and Chairman of the Audit Committee since June 2013. He served as a director, COO and CFO of Lilis Energy, Inc. (Nasdaq: LLEX) (formerly Recovery Energy, Inc.) until May 2014. Lilis Energy, Inc. is a Denver, Colorado-based energy company with operations focused in the Denver Julesburg basin; he was appointed as CFO of Lilis Energy in July 2011, as a director in August 2012, and as COO in September 2013. He previously served Lilis Energy as President from November 2012 to September 2013. Prior to Lilis Energy, Mr. Gabbard served as an officer of Applied Natural Gas Fuels, Inc., serving from September 2009 to May 2010 as Vice President-Special Projects and from May 2010 through June 2011 as its CFO. From April 2007 through September 2009, he co-owned and managed MG Advisors, LLC with Mr. Marcum, where he provided management and financial consulting services to companies involved in oil and gas and energy related businesses. From 1991 to April 2007, Mr. Gabbard co-founded and then served as a director, Executive Vice President and CFO of PowerSecure International, Inc. (NYSE: POWR; f/k/a Metretek Technologies, Inc.), a developer of energy and smart grid solutions for electric utilities and their commercial, institutional, and industrial customers. He received a bachelor of accountancy degree from the University of Oklahoma in 1977 and is a CPA.

Director Qualifications:

- Leadership Experience - Director, COO, CFO and former President of Lilis Energy, Inc.; CFO of Applied Natural Gas Fuels, Inc.; Director, Executive Vice President and CFO of PowerSecure International, Inc.
- Industry Experience - 36 years of experience in the management and operations of traditional and alternative energy companies, including those that primarily serve utilities, and small, publicly held companies.
- Finance Experience - CPA; Accounting degree from University of Oklahoma; Former CFO of Lilis Energy, Inc.; Former CFO of Applied Natural Gas Fuels, Inc. and PowerSecure International, Inc.; provided management and financial consulting services at MG Advisors, LLC; worked with the national accounting firm Ernst & Young.

Derek C. Johnson currently is Chairman of Peak 9 Partners, an operating fund, and also serves as a Board member of Visuality Corporation, a specialty supplier to the retail industry; he has held these positions since 2016. He previously served as the Chairman of Visuality Corporation from 2013 to January 2016 and as President and CEO of Visual Merchandising, Inc., a subsidiary of Visuality Corporation and predecessor of NOA Brands America, Inc. from September 2009 to 2013 and from November 2005 to October 2008. Mr. Johnson served as the Vice President of new business development for Kennametal, a public company based in Pittsburgh, PA, a global provider of metalworking solutions using tungsten carbide inserts from October 2008 to August 2009. Since 2008, Mr. Johnson has served as a Director of Qualmark Corporation (OTCBB: QMRK), a company that designs, manufactures, and markets proprietary equipment that rapidly and efficiently exposes product design and manufacturing-related defects for the purpose of improving product quality and reliability. From 1984 to 2005, Mr. Johnson was employed in various positions, including President and COO of CoorsTek, a manufacturer of technical products, supplying critical components and assemblies for mining, automotive, semiconductor, aerospace, electronic, power generation, telecommunication and other high-technology applications on a global basis. He has a Higher National Certificate from Kirkcaldy College in Scotland and an Executive M.B.A. from the University of Denver.

Director Qualifications:

- Leadership Experience - President and CEO of Visual Merchandising, Inc.; Vice President of Kennametal; Director of Qualmark Corporation; President and COO of CoorsTek; Executive M.B.A. from the University of Denver.

- Industry Experience - Senior management and experience in the development and manufacturer of technical products in diverse international markets at the entities and in the capacities described above.

Paul A. Lang is the President and COO of Arch Coal, Inc. and has served in that capacity since May 2015. Mr. Lang has also served as a Director of Arch Coal, Inc. since February 2014, serving on the Finance and Energy & Environmental Policy Committees, and a Director of Knight Hawk Coal Company, LLC from April 2011. Prior to that, from April 2012 to May 2015, Mr. Lang served as Executive Vice President and COO of Arch Coal, Inc. From August 2011 to April 2012, Mr. Lang served as Executive Vice President - Operations of Arch Coal, Inc. Mr. Lang served as Senior Vice President - Operations of Arch Coal, Inc. from December 2006 through August 2011, President of Western Operations from July 2005 through December 2006, and President and General Manager of Thunder Basin Coal Company, LLC (a subsidiary of Arch Coal, Inc.) from 1998 through July 2005. The initial appointment of Mr. Lang to our Board was made pursuant to the 2003 Subscription and Investment Agreement with Arch Coal, Inc. whereby our management agreed to make available one seat on the Board for an Arch Coal designee and to vote all shares and proxies they are entitled to vote in favor of such designee for so long as Arch Coal continues to hold at least 200,000 shares of our common stock.

Director Qualifications:

- Leadership Experience - Director, President and Chief Operating Officer of Arch Coal, Inc.; former Executive Vice President and Senior Vice President - Operations of Arch Coal, Inc.; President of Western Operations of Arch Coal, Inc.; President and General Manager of Thunder Basin Coal Company, LLC (a subsidiary of Arch Coal, Inc.).
- Industry Experience - Through his various roles at Arch Coal and related entities, he understands the coal industry and market and related coal industry product development as well as international markets, which the Company plans to pursue. Arch Coal serves many of the same customers as the Company.

W. Phillip Marcum served as the Chairman and CEO of Lilis Energy, Inc. (NASDAQ: LLEX) (formerly Recovery Energy, Inc.) a Denver, Colorado-based energy company with operations focused in the Denver Julesburg basin in November 2012. In July 2011, he was appointed as a director of Lilis Energy and was appointed its CEO in November 2012. Mr. Marcum served as a chairman of the board of Applied Natural Gas Fuels, Inc., a liquefied natural gas producer based in Westlake Village, California (OTC: AGAS) from 2008 to 2013. He has served as a director of Key Energy Services (NYSE: KEG), an oilfield services company based in Houston, Texas, since 1996. Prior to his appointment to the Board of Key Energy Services, he was the non-executive Chairman of the Board of WellTech, Inc., an energy production services company, from 1994 until March 1996, when WellTech was merged into Key Energy Services. From January 1991 to April 2007, Mr. Marcum was Chairman of the Board, President and Chief Executive Officer of PowerSecure International (NYSE: POWR), f/k/a Metretek Technologies, Inc. which develops energy and smart grid solutions for electric utilities, and their commercial, institutional, and industrial customers. He retired in April 2007. Mr. Marcum was a principal in MG Advisors, LLC from April 2007 to 2011. He holds a bachelor's degree in Business Administration from Texas Tech University.

Director Qualifications:

- Leadership Experience - Chairman and CEO of Lilis Energy, Inc.; Chairman of the Board of Applied Natural Gas Fuels; Director of Key Energy Services; Director of Recovery Energy; Non-executive Chairman of WellTech; Chairman, President and CEO of Metretek Technologies; Chairman of the Board of the Company.
- Industry Experience - Extensive experience in oil and gas development stage and public companies at the entities and in the capacities described above.

L. Heath Sampson is the President, Chief Executive Officer and Treasurer of the Company. Mr. Sampson has served in this role since April 1, 2015. Prior to his appointment as President and Chief Executive Officer, Mr. Sampson served as Chief Financial Officer and Treasurer of the Company from August 27, 2014. Mr. Sampson is also a director and the Treasurer of ADA-ES, Inc., a wholly-owned subsidiary of the Company, a Manager on the Board of Managers of Clean Coal Solutions, LLC, and a manager and officer of other ADES subsidiaries. Prior to joining the Company, he served Square Two Financial, a $500 million private equity backed consumer collections company, as Chief Financial Officer and led a corporate restructuring project. From January 2007 to August 2009, Mr. Sampson served as Chief Financial Officer of First Data Financial Services, a business unit of First Data Corporation, a large-market global SEC registrant, and led strategy development for the $2.5 billion business unit with over 15,000

employees. From February 2005 to January 2007, he served First Data Corporation as the business unit Chief Financial Officer for both the Innovative Payments and Integrated Payment Systems business units. At First

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Data Corporation, Mr. Sampson also led corporate restructuring projects and was instrumental to a large solution-based corporate turnaround sales effort. He was also employed by Arthur Andersen LLC from the mid-1990s until the early 2000s. During his time at Arthur Andersen, Mr. Sampson served as the Manager of Audit Services and Senior Manager of Business and Risk Consulting. His early business consulting career provided him with broad-based experience in all aspects of corporate operations including supply chain, financial management, operations, customer experience and organizational design. Mr. Sampson holds a Bachelor of Business Administration-Accounting and Masters of Accountancy from the University of Denver.

Director Qualifications:

- Leadership Experience - President and Chief Executive Officer of the Company; former Chief Financial Officer of Square Two Financial and multiple business units of First Data Corporation including First Data Financial Services; former Manager of Audit Services and former Senior Manager of Business and Risk Consulting at Arthur Andersen LLC.
- Industry Experience - President and Chief Executive Officer and former Chief Financial Officer of the Company.
- Finance Experience - former Chief Financial Officer of the Company; former Chief Financial Officer of Square Two Financial and multiple business units of First Data Corporation including First Data Financial Services; former Manager of Audit Services and former Senior Manager of Business and Risk Consulting at Arthur Andersen LLC; Bachelor of Business Administration-Accounting and Masters of Accountancy from the University of Denver.

Christopher S. Shackelton is a co-founder at Coliseum Capital Management, LLC and serves as a Managing Partner. Coliseum Capital Management, LLC is a beneficial owner of more than 5% of our outstanding common shares; as such, Mr. Shackelton may be deemed to also be a beneficial owner of such shares as described in Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Mr. Shackelton offers extensive experience based upon his service on multiple corporate boards. He is currently the Chairman of the Board for Providence Service Corporation (NASDAQ: PRSC), of which he has been a director since November 2012. Since 2012, Mr. Shackelton has also served on the Audit Committee and Corporate Development Committee for LCH Group Inc. (NASDAQ: LHCG). Since March 2015, Mr. Shackelton has also served on the Compensation and Corporate Development Committee for BioScrip Inc. (NASDAQ: BIOS). Prior to his current directorships, Mr. Shackelton served on the Board of Rural/Metro Corp. from 2008 to 2011 and Interstate Hotels & Resorts, Inc. from 2009 to 2010. Mr. Shackelton serves as a Trustee for New Haven Community Outreach and Chairman for The Connecticut Open at Yale. During the early 2000s, Mr. Shackelton worked as an analyst for Morgan Stanley & Co. and Watershed Asset Management LLC. Mr. Shackelton holds a Bachelor of Arts in Economics from Yale University.

Director Qualifications:

- Leadership Experience - Managing Partner of Coliseum Capital Management, LLC; Chairman of the Board of Providence Service Corporation, Director for LCH Group Inc., Director for BioScrip Inc.; Prior Director for Rural/Metro Corp. and Interstate Hotels & Resorts, Inc.
- Industry, Finance and Investment Experience - Managing Partner of Coliseum Capital Management, LLC, a private investment company; Watershed Asset Management LLC, leading investments in the energy sector; Morgan Stanley & Co within Investment Banking, Power & Utilities Group.

J. Taylor Simonton has over 45 years of experience in financial accounting and auditing. Since October 2013, Mr. Simonton has been a director of Escalera Resources Co. f/k/a Double Eagle Petroleum (OTC: ESCR), a developer of natural gas and crude oil properties in the Rocky Mountain region. He currently serves Escalera Resources as the Audit Committee Chair and a member of the Compensation and Nominating and Governance Committees. From May 2008 to July 2015, Mr. Simonton was a director of BDCA Venture, Inc. f/k/a Keating Capital, Inc. (NASDAQ: BDCV) , a business development company and closed-end mutual fund. He served BDCA as the Lead Director, Chair of the Audit Committee and a member of the Nominating & Governance, Compensation and Valuation Committees and also served as the Chair of the Valuation Committee from 2008 to 2011.Mr. Simonton served as a director and Chair of the Audit Committee for Zynex, Inc. (OTC: ZYXI) from October 2008 to January 2014. He served as a director, Chair of the Audit Committee (2005-2009), and a member of the Nominating and Governance Committee of

Red Robin Gourmet Burgers, Inc. (NASDAQ: RRGB) from September 2005 to May 2013. Mr. Simonton was a member of the Board of Directors of the Colorado Chapter of the National Association of Corporate Directors ("NACD") from September 2005 to July 2015, serving at various times as the Chairman, President,

Treasurer and Publicity Chair/Editor. Mr. Simonton is a Board Leadership Fellow, the highest director credential of NACD. He is a member of the American Institute of CPAs and Colorado Society of CPAs. For 35 years, Mr. Simonton served at PricewaterhouseCoopers LLP (“PwC”), the world’s largest accounting and professional services firm, including 23 years as an Assurance Partner and seven years in the firm’s SEC Department of its National Professional Services Group, four of which were international. Mr. Simonton received a B.S. degree in accounting from the University of Tennessee and is a CPA.

Director Qualifications:

- Leadership Experience - Director and Chair of the Audit Committee of Escalera Resources Co.; previously Lead Director, Chair of the Audit Committee and Chair of the Valuation Committee of BSCA Ventures, Inc. Director and Chair of the Audit Committee for Zynex, Inc., Red Robin Gourmet Burgers, Inc., and one other public company; Chairman, President, and Treasurer of the Board of Directors of the Colorado Chapter of NACD; Board Leadership Fellow, the highest director credential of NACD; and Colorado 2014 Outstanding Public Company Director, as awarded by the Denver Business Journal and NACD-Colorado.
- Industry Experience - Varied experience throughout the years in the industry and as director of Escalera Resources Co., a developer of natural gas and crude oil properties in the Rocky Mountain region.
- Finance Experience - Extensive and varied experience for over 45 years in financial accounting and auditing, including 35 years at PricewaterhouseCoopers LLP. He possesses a CPA and is member of the American Institute of CPAs and Colorado Society of CPAs.

L. Spencer. Wells has over 15 years of experience as a financial analyst and is a Partner at Drivetrain Advisors providing extensive knowledge on portfolio management, proprietary trading, and special situation expertise. Prior to his work at Drivetrain Advisors, Mr. Wells served as a Senior Advisor at TPG Special Situations Partners. Mr. Wells currently serves on the Board for the Center for Music National Service, for which he has been a director since 2011. He has also served on the Board of Directors for Alinta Holdings from March 2013 to September 2013 and Kerogen Resources from January 2007 to April 2009. Mr. Wells is a Trustee, a member of the Investment Committee and Finance Committee, and Co-Chair of the Development Committee for Western Reserve Academy. From 2010 to 2012, Mr. Wells served as a partner for TPG Special Situations Partners, during which time he created and managed an investment portfolio approximated at $2.5 billion. From 2002 until 2009, Mr. Wells served as a Partner and a Portfolio Manager at Silverpoint Capital. While at Silverpoint, he covered the energy, chemicals, and building products sectors and managed an investment portfolio estimated at $1.3 billion. Mr. Wells holds a B.A. in Psychology from Wesleyan University and a Master of Business Administration from Columbia Business School.

Director Qualifications:

- Leadership Experience - Senior Advisor and a prior partner at TPG Special Situations Partners, Director for the Center for Music National Service, prior Director for Alinta Holdings and Kerogen Resources, and Trustee and Co-Chair of the Development Committee for Western Reserve Academy.
- Industry Experience - Through his various roles as a financial analyst, he has covered the energy chemicals and building products sectors.
- Finance Experience - Extensive and varied experience with over 15 years of involvement as a financial analyst.

Executive Officers of the Registrant

The Company's executive officers as of the date of this filing, are as follows:

Name	Age	Positions
Christine B. Amrhein	54	General Counsel and Secretary
A. Bradley Gabbard	61	Chief Financial Officer
Graham O. Mattison	44	Vice President, Strategic Initiatives & Investor Relations
L. Heath Sampson	45	President, Chief Executive Officer and Treasurer
Sharon M. Sjostrom	49	Chief Product Officer

Information concerning our executive officers who are not directors is provided below. See “Directors of the Registrant” above for information regarding Messrs. Gabbard and Sampson.
Christine B. Amrhein became Corporate Counsel and Vice President of the Company in July 2011 and was promoted to General Counsel in June 2012 and Secretary in August 2014. Prior to her appointment in 2011, Ms. Amrhein served as Vice President - Associate General Counsel of The TriZetto Group, Inc. from 2008 through 2011. From 2003 through 2008, Ms. Amrhein was Senior Counsel of First Data Corporation. From 1989 through 2003, Ms. Amrhein had various legal and business roles with The Timken Company. Ms. Amrhein holds a B.A. degree from Allegheny College, an M.A. degree from the University of Exeter and a J.D. degree from the University of Pittsburgh School of Law. Ms. Amrhein also completed the Executive Program at the University of Virginia Darden School of Business.
Graham O. Mattison has served as our Vice President of Investor Relations since December 2012 and was promoted to Vice President of Strategic Initiatives and Investor Relations in February 2015. Prior to joining our Company, he served as an Equity Research Analyst covering alternative energy and industrials for Lazard Capital Markets from 2007 through 2012, including coverage of ADA-ES. From 2004 to 2007, Mr. Mattison served as an Equity Research Associate covering alternative energy, energy infrastructure and oilfield services for First Albany Capital. Previously, he served as an associate at MMC Energy, LLC and co-founded 1RoofRealty.com, serving as its Chief Operating Officer and Chief Financial Officer. He began his career as a financial analyst at Daiwa Securities and Churchill-Pryce Capital in their Bangkok, Thailand offices. He holds a B.A. degree from Hobart College and an M.B.A. degree with a specialization in global finance, with honors, from Thunderbird, The Garvin School of International Management.
Sharon M. Sjostrom has served as our Chief Product Officer since July 2015, our Chief Technology Officer from January 2011 to July 2015 and as Vice President of Technology from January 2007 to December 2010. Previously she served the Company as Director, Technology Development since 2003 when we acquired her company EMC Engineering, LLC, an engineering services company, where she served as President since 2002. From 1998 until September 2002, Ms. Sjostrom served as Director of Emissions Control for Apogee Scientific, LLC, a provider of advanced engineering and environmental technologies. Ms. Sjostrom has a B.S. in Mechanical Engineering from Colorado State University, an M.S. in Mechanical Engineering from the California Institute of Technology and an Executive M.B.A. from the University of Denver.

Individuals who served the Company as executive officers during the year ended December 31, 2014 but whom no longer serve are as follows

Name	Positions
C. Jean Bustard	Chief Operating Officer
Jonathan R. Lagarenne	Executive Vice President
Michael D. Durham	President and Chief Executive Officer
Mark H. McKinnies	Chief Financial Officer and Secretary
Rachel A. Smith	Chief Accounting Officer

C. Jean Bustard, served as our Chief Operating Officer from her appointment in June 2004 until her retirement effective December 31, 2014. Ms. Bustard also served in various other positions with our subsidiaries until September 19, 2014, including as Manager of Clean Coal Solutions, LLC, our subsidiary, Chief Operating Officer (“COO”) of BCSI, LLC, Manager of ADA-ES Intellectual Property, LLC and Manager of ADA-RCM6, LLC. She was the Interim President of ADA-CS from October 2008 through September 2010 and served as a member of its Board of Managers from October 2008 through November 2011. Prior to her appointment as COO of the Company, she served as Executive Vice President of ADA Environmental Solutions, LLC, our wholly owned subsidiary, beginning with its formation in 1996. Ms. Bustard was employed by ADA Technologies from 1988 through 1996. Ms. Bustard holds a B.S. in Physics Education from Indiana University, an M.A. in Physics from Indiana State University and an Executive M.B.A. from the University of Colorado.
Jonathan R. Lagarenne served as our Executive Vice President from May 2012 until January 2016. Prior to joining our Company, from 2005 to 2012, he was a partner at Fox Rothschild LLP. Mr. Lagarenne was in private practice as an attorney at the Law Office of Jonathan Lagarenne from 2004 to 2005. He served on the Board of Directors of Turbosonic Technologies from 2002 to 2005. Mr. Lagarenne served as the Chief Executive Officer of Hamon Corporation from 2000 through 2003 and as the Chief Operating Officer from 1998 to 2000. From 1994 to 1998, he

served as Vice President and General Counsel of Research-Cottrell, Inc., serving as Associate Counsel prior to that. From 1990 to 1998, Mr. Lagarenne served in multiple regional counsel positions for Air & Water Technology Corporation. Mr. Lagarenne holds a B.S. degree in chemical engineering, with honors, from the University of Virginia and a J.D. degree from Rutgers School of Law.

Dr. Michael D. Durham was a co-founder in 1985 of ADA Technologies, Inc., an Englewood, Colorado private company, which contracted with the federal government and others for development of emission technologies. ADA Environmental Solutions, LLC, our indirect wholly owned subsidiary, was originally spun-out of ADA Technologies in 1996. Dr. Durham served as our President, CEO, and a director since our reorganization in 2013 until April 30, 2015. He previously served as President, CEO and a director of ADA since 2003. He also served ADA as its CEO and served as President of ADA Environmental Solutions, LLC, an indirect wholly owned subsidiary, since its formation in 1996 through the end of 2013. In 2009, Dr. Durham served as a manager of ADA Carbon Solutions, LLC ("ADA-CS"), a former joint venture of ADA-ES with Energy Capital Partners I, LP and its affiliated funds. In 1995, Dr. Durham led the formation of Clean Coal Solutions, LLC and served as a Manager of this joint venture with NexGen Resources and Goldman Sachs. Dr. Durham has a B.S. in Aerospace Engineering from Pennsylvania State University, an M.S. and Ph.D. in Environmental Engineering from the University of Florida and an Executive M.B.A. from the University of Denver. Dr. Durham served as a member of the Board of the American Coal Council, a trade association of companies that sell, use and provide services related to coal, a Board member and President of the Institute of Clean Air Companies ("ICAC"), a trade association of companies that provide equipment to measure and control air pollution from, and a member of the National Coal Council, which advises the Secretary of Energy on coal-related issues.

Mark McKinnies served as our Chief Financial Officer and Secretary from his appointment in 2003 to August 26, 2014. Mr. McKinnies also served as Senior Vice President since 2005 and as Treasurer of ADES from its incorporation, both until August 26, 2014. Prior to his officer role in the Company, he was employed by Earth Science for 22 years. Mr. McKinnies worked at KPMG LLP., a national accounting firm, before beginning his tenure at Earth Science in 1978. Mr. McKinnies holds a B.S. in Accounting from the University of Denver.

Rachel A. Smith served as our Chief Accounting Officer from April 2014 until March 2015. Prior to her appointment as Chief Accounting Officer, Ms. Smith served our Company as Interim Corporate Controller and Director of Finance since January 2014. From November 2010 to January 2014, she was principal of Smith Financial Consulting, L.L.C., an accounting and finance and project management consulting firm based in Colorado, where she served as an Internal Audit, Financial Reporting, Technical Accounting and Project Manager. Smith Financial Consulting was a consultant to ADA-ES, Inc., a current subsidiary and predecessor issuer of our Company from August 2013 through January 2014. Ms. Smith served ADA Carbon Solutions, LLC, our subsidiary at the time, and ADA as Director of Internal Audit from February through June 2007 and then as Corporate Controller from June 2007 to October 2010. She was the Internal Audit Supervisor for Newmont Mining Corporation (NYSE:NEM), a gold producer, from June 2006 through February 2007. Ms. Smith also served as an Audit Manager for Ernst & Young LLP. She holds a Bachelor of Commerce degree in accounting and finance from the University of Western Australia and an M.B.A. degree in finance from Curtin University of Technology.

Corporate Governance

Director Independence

Our current Board consists of seven independent directors, as defined in NASDAQ Marketplace Rule 4200(a)(15). In our fiscal years 2013 and 2014, all directors other than Dr. Durham and Mr. McKinnies qualified as "independent directors." Due to services performed for the Company during 2014, Mr. Gabbard was not independent for purposes of serving on the Audit Committee and accordingly only served on the Audit Committee from October 2012 to May 2014, when he qualified as independent. The Board maintains audit, compensation, and nominating and governance committees, each of which was and is comprised solely of independent directors. The Board also currently maintains a Finance Committee and Stock Committee, both of which are comprised of independent and management directors. The charter of each committee is available on our website at www.advancedemissionssolutions.com under the "Corporate Governance" section of "ADES Investor Resources".

Board Meetings and Committees

Our Board is responsible for establishing broad corporate policies and monitoring the overall performance of the Company. However, in accordance with corporate legal principles, the Board is not involved in day-to-day operating

matters. Members of the Board are kept informed of the Company's business by participating in Board and committee meetings, by reviewing analysis and reports sent to them weekly and monthly, and through discussions with the President and CEO and other officers.

The Board of Directors met thirteen times in each of 2013 and 2014. At each of the Board of Directors meetings the independent directors were polled to determine if they believed an Executive Session was needed. In 2013 and 2014, the Board held two and seven, respectively, executive sessions where management of the Company was excluded. The Audit Committee met nine times in 2013 and 24 times in 2014. The Compensation Committee met seven times in 2013 and nine times in 2014. The Finance Committee met eight times in 2014. The Nominating and Governance Committee met seven times in 2013 and six times in 2014. The Stock Committee met as requested by management to consider employee stock awards in 2013 and 2014.

All of the directors were present for more than 75% of the meetings of the Board of Directors and the committees of which they were members held during their individual terms.

Code of Ethics

We have adopted a Code of Ethics and Business Conduct which incorporates our Insider Trading Policy that apply to our officers, directors, and employees, including the principal executive officer, principal financial officer, principal accounting officer or controller or other persons performing similar functions, which includes a code of ethics as defined in Item 406(b) of SEC Regulation S-K. A copy of our Code of Ethics and Business Conduct, which was most recently amended on August 26, 2014, is available on our website at www.advancedemissionssolutions.com. We intend to disclose any amendments to our Code of Ethics and Business Conduct, or waivers of such provisions granted to executive officers and directors, on our website.

Board Leadership Structure and Role in Risk Oversight

We have a policy of keeping the roles of Chief Executive Officer and Chairman of the Board separate, and the roles are currently filled by two different individuals. We believe this arrangement is appropriate as it recognizes the distinction between the role played by the Chief Executive Officer, which is a position being more heavily oriented towards day-to-day management, while the Chairman functions as an independent director whose role is to oversee the Board of Directors and is also able to participate in and chair executive sessions of the Board.

The Board has designated the Audit Committee to take the lead in overseeing risk management, and the Audit Committee periodically reports to the Board regarding briefings provided by management and advisors as well as the Committee's own analysis and conclusions regarding the adequacy of the Company's risk management processes. In addition to this compliance program, the Board encourages management to promote a corporate culture that incorporates risk management into the Company's strategy and day-to-day business operations. The Board and management, including our General Counsel, continually work together to assess and analyze our most likely areas of risk.

Audit Committee

Our Board has an Audit Committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which currently consists of Messrs. J. Taylor Simonton, Derek C. Johnson, and Paul A. Lang. Our Board determined that Mr. Simonton and Mr. Lang are each an Audit Committee Financial Expert. Each Audit Committee member is "independent" as that term is used in the listing requirements for the NASDAQ Stock Market, and a brief listing of his relevant experience is stated in his biography above under the caption entitled "Directors of the Registrant."

The role and functions of the Audit Committee are set out in the Audit Committee Charter, originally adopted by the Company's Board and most recently amended on September 9, 2015. The role of the Audit Committee is one of oversight of the services performed by the Company's independent registered public accounting firm. The Audit Committee's functions include the following: reviewing and assessing the Audit Committee Charter annually; overseeing the Company's compliance with legal, ethical and regulatory requirements, including the Code of Ethics and Business Conduct and approving related party transactions; overseeing the Company's processes to identify and manage business and financial risk; appointing, approving the compensation of and reviewing the Company's

relationships with its independent registered public accounting firm and/or other auditors and assessing the impact such relationships may have on the auditors' objectivity and independence; taking other appropriate action to oversee the independence of the outside auditors; reviewing and considering the matters identified in Auditing Standard 16 adopted by the Public Company Accounting Oversight Board ("PCAOB") with the outside auditors and management; reviewing and discussing the Company's financial statements and report on internal control with the outside auditors and management; recommending whether the Company's audited financial statements should be included in the Company's Form 10-K for filing with the Securities and Exchange Commission; and reporting to the Board on all such matters. In performing its oversight function, the Audit Committee relies upon advice and information received in its discussions with the Company's management and independent registered public accounting firm.

The Audit Committee is responsible for appointing and approving the compensation of, and reviewing the Company's relationships with, its independent registered public accounting firm and assessing the impact such relationship may have on the auditors' objectivity and independence. The Audit Committee pre-approves all audit or non-audit services performed by our independent accountant in accordance with Audit Committee policy and applicable law. The Audit Committee approved the appointment of KPMG LLP ("KPMG") as the Company's independent registered public accounting firm to perform independent audit services beginning with the fiscal year ended December 31, 2013. The initial appointment of KPMG followed a competitive process to select the Company's new auditors. On January 23, 2015, KPMG resigned as the Company's independent accounting firm. The details of the end of KPMG's relationship with the Company are set forth in the Company's Current Report on Form 8-K filed on January 29, 2015. On June 12, 2015, based on a recommendation of the Audit Committee after an extensive competitive proposal process, the Company engaged Hein & Associates LLP ("Hein") as the new independent registered public accounting firm for the Company. Hein audited the Company's financial statements included in

this filing on Form 10-K and has also been engaged to perform an audit of the Company's financial statements for the fiscal year ending December 31, 2015.

Report of the Audit Committee
The Audit Committee's role and functions are described under the Corporate Governance section in Item 10 of this Annual Report on Form 10-K.

The Audit Committee has (i) reviewed and discussed the Company's audited financial statements for the years ended December 31, 2012, 2013 and 2014 with the Company's management; (ii) discussed with the Company's current independent registered public accounting firm, Hein & Associates LLP ("Hein"), the matters required to be discussed by PCAOB Auditing Standard 16 regarding communication with audit committees, including the overall scope and plans for their audits; and (iii) received the written disclosures and the letter from the Company's independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent accountant's communications with the Audit Committee concerning independence and has discussed with the Company's independent accountants such independent accountants' independence.

As more fully discussed under the New Independent Public Accounting Firm section in Item 9 of this Annual Report on Form 10-K, the Audit Committee, after an extensive competitive proposal process, approved the engagement of Hein, effective as of June 12, 2015, to serve as its new independent registered public accounting firm to audit the Company's financial statements for the years ended December 31, 2013, 2014 and 2015 and to re-audit the Company's financial statements for the year ended December 31, 2012.

The Audit Committee held 24 meetings in 2014 and 23 meetings in 2015. Most of these meetings related to the Audit Committee's oversight of the internal investigation, conducted with outside legal counsel, of certain accounting matters undertaken in March 2014, the SEC Inquiry, and the Re-audit and Restatement of the Company's annual financial statements for 2012 and the completion of the Company's annual audited financial statements for 2013 and 2014, all included in this Annual Report on Form 10-K. The Audit Committee's meetings included discussions with the Company's new Vice President Risk, Process and Controls and other members of management regarding the Company's several identified material weaknesses in internal controls over financial reporting and the Company's implemented and continuing remediation efforts of those weaknesses as more fully discussed under the Remediation of Material Weaknesses section in Item 9A of this Annual Report on Form 10-K.

Based on the review and discussions with management, and the Company's independent registered public accounting firm referred to above, the Audit Committee recommended to the Board that the audited consolidated financial statements as of and for the fiscal years ended December 31, 2013 and 2014, and the restated audited consolidated financial statements as of and for the fiscal year ended December 31, 2012, be included in this Annual Report on Form 10-K for the year ended December 31, 2014.
Respectfully submitted,

The Audit Committee: J. Taylor Simonton, Chair
Derek C. Johnson
Paul A. Lang

Compensation Committee
Our Board has appointed a Compensation Committee currently consisting of Ms. Clarke and Messrs. Lang and Marcum. Ms. Clarke currently serves as the chairperson of the Compensation Committee. The responsibilities of the Compensation Committee, as set forth in the Compensation Committee Charter, most recently amended on September 9, 2015, include reviewing our executive compensation programs to analyze their alignment with attracting, retaining and motivating our executive officers to achieve our business objectives; establishing annual and long-term

performance goals for our executive officers and evaluating their performance in light of such goals, reviewing, approving and, when appropriate, making recommendations concerning our long-term incentive plans, reviewing and making recommendations regarding stockholder proposals related to compensation and administering our equity-based and employee benefit plans. See “Item 11. Executive Compensation” below for additional information.

Nominating and Governance Committee

Our Board has appointed a Nominating and Governance Committee currently consisting of Ms. Clarke and Messrs. Johnson, Lang and Marcum. Mr. Johnson serves as the chairman of the Nominating and Governance Committee. The responsibilities of the Committee, as set forth in the Nominating and Governance Committee Charter, most recently amended on September 9, 2015, include selecting director nominees for the Board, reviewing director compensation and benefits, submitting the same to the entire Board for approval, overseeing the annual self-evaluation of the Board and its committees, recommending the structure and composition of Board committees to the entire Board for approval, monitoring in conjunction with the Audit Committee compliance with our Code of Ethics and Business Conduct, granting any waivers thereto with respect to directors and executive officers, recommending individuals to serve as Chairperson of the Board and Chief Executive Officer, and reviewing the Chief Executive Officer's recommendations for individuals to serve as executive officers and analyzing and recommending such persons to the Board.

Criteria established for the selection of candidates for the Board include:

a. An understanding of business and financial affairs and the complexities of an organization that operates as a public company;
b. A genuine interest in representing all of our stockholders and the interests of the Company overall;
c. A willingness and ability to spend the necessary time required to function effectively as a director;
d. An open-minded approach to matters and the resolve and ability to independently analyze matters presented for consideration;
e. A reputation for honesty and integrity that is above reproach;
f. Any qualifications required of independent directors by the NASDAQ Stock Market and applicable law; and
g. As to any candidate who is an incumbent director (who continues to be otherwise qualified), the extent to which the continuing service of such person would promote stability and continuity in the Boardroom as a result of such person's familiarity and insight into the Company's affairs, and such person's prior demonstrated ability to work with the Board as a collective body.

Director nominees are generally identified by our officers, directors or stockholders based on industry and business contacts. Regardless of the source of the nomination, nominees are interviewed and evaluated by the Nominating and Governance Committee, other members of the management team, and the Board as deemed appropriate by the Nominating and Governance Committee. The Nominating and Governance Committee then presents qualified candidates to the Board for a final discussion and vote.

We do not have a formal policy with respect to the consideration of diversity in the identification of director nominees, but the Nominating and Governance Committee strives to select candidates for nomination to the Board with a variety of complementary skills so that, as a group, the Board possesses the appropriate talent, skills and expertise to oversee the Company's businesses.

Under the Nominating and Governance Committee Charter, the Nominating and Governance Committee will consider nominees submitted by our stockholders. Recommendations of individuals must meet the criteria set forth in the Nominating and Governance Committee Charter.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our officers, directors, and persons who beneficially own more than ten percent of a registered class of our equity securities to file reports of ownership with the SEC. Officers, directors, and greater than ten percent stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

In November 2014, in connection with our examination of our financial statements and our reporting processes, we undertook a review of all of our outstanding equity, including the equity held by our officers, directors and other Section 16 persons. Our review revealed that a number of the transactions in our securities by persons subject to Section 16 were unreported or reported incorrectly. With the assistance of our legal counsel, we have prepared or corrected and filed on February 17, 2015 reports for transactions by Michael D. Durham, including two amended Forms 4 and a Form 5 that was timely filed for the fiscal year ended December 31, 2014 but also included a total of

four transactions for the fiscal years ended December 31, 2012 and 2013.

For the fiscal year ended December 31, 2013, the following persons subject to Section 16(a) beneficial ownership reporting filed late reports:

Reporting Person	No. of Late Reports	Total No. of Transactions Reported Late
Christine B. Amrhein	2	3
C. Jean Bustard	1	1
Michael D. Durham	1	2
Jonathan R. Lagarenne	1	2
Cameron E. Martin	1	2
Graham O. Mattison	1	2
Mark H. McKinnies	1	1
Richard L. Miller	1	1
Richard J. Schlager	1	2
Sharon M. Sjostrom	1	2

Each Section 16 person listed above received equity grants on May 14, 2013 under the Company's LTIP, defined and discussed below, for which Forms 4 were filed five days late due to an administrative delay. In addition, the Form 4 for an equity grant to Ms. Amrhein's spouse on April 22, 2013 was filed one day late.

For the fiscal year ended December 31, 2014, the following persons subject to Section 16(a) beneficial ownership reporting filed late reports:

Reporting Person	No. of Late Reports	Total No. of Transactions Reported Late
Christine B. Amrhein	1	2
C. Jean Bustard	0	0
Kim B. Clarke	1	1
Michael D. Durham	2	3
Coliseum Capital Management, LLC	2	2
A. Bradley Gabbard	1	1
Derek C. Johnson	1	1
Jonathan R. Lagarenne	1	1
W. Phillip Marcum	0	0
Graham O. Mattison	1	1
Mark H. McKinnies	2	2
J. Taylor Simonton	1	1
Sharon M. Sjostrom	1	1
Jeffrey Clark Smith	1	1
L. Spencer Wells	1	1

Ms. Amrhein (both directly and indirectly through her spouse), Messrs. Durham, Lagarenne and McKinnies and Ms. Sjostrom each received shares of common stock as the Company's matching contributions under the Company's 401(k) Plan on February 11, 2014, for which the Forms 4 were filed three days late due to an administrative delay. Each non-management director (Ms. Clarke, Coliseum Capital Partners (for the Board service of Christopher Shackleton) and Messrs. Gabbard, Johnson, Marcum, Simonton, Smith and Wells) were granted shares of common stock on July 1, 2014 pursuant to the Director compensation arrangement approved in January 2009 and amended from time to time, which automatically grants shares on July 1 of each year. However, given the unavailability at that time of the Registration Statement on Form S-8 registering shares of common stock for issuance under the 2007 Plan, the Company did not issue the shares to directors on July 1, 2014 and was not aware that Section 16 required the filing of reports at the time to reflect the grants. The Company was subsequently advised by outside legal counsel of the filing requirement despite the fact that the shares had not been issued and promptly filed Forms 4 on February 17, 2015.

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The Company is not aware of any unreported transactions for 2013 and 2014.

Item 11. Executive Compensation

Compensation Committee Report

The Compensation Committee has reviewed and discussed with the Company's management the Company's Compensation Discussion and Analysis for the fiscal years ended December 31, 2013 and 2014.

Based on the review and discussions with management, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis for the years ended December 31, 2013 and 2014 be included in this Report on Form 10-K for filing with the SEC.

Respectfully submitted,

The Compensation Committee: Kim B. Clarke, Chairperson
Paul A. Lang
W. Phillip Marcum

COMPENSATION DISCUSSION AND ANALYSIS

In this Compensation Discussion and Analysis, we provide an analysis and explanation of our compensation program and the compensation earned by our named executive officers in the fiscal years ended December 31, 2013 and 2014. Our Compensation Committee is charged with establishing the Company's philosophy for executive compensation and approval, oversight, implementation and administration of executive compensation and benefits. Generally, the President and Chief Executive Officer of the Company makes recommendations to the Compensation Committee regarding executive compensation; however, authority to approve compensation, performance goals and objectives for all executives is vested in the Compensation Committee.

Our Compensation Committee has the sole authority to engage and compensate a compensation adviser and in November 2012
determined it was in the best interest of the Company to engage a compensation adviser to assist with the design and implementation of compensation arrangements starting in 2013. In November 2012, our Compensation Committee completed a competitive bidding process and selected Longnecker & Associates ("Longnecker"). Based on disclosures made by Longnecker, the Compensation Committee determined that Longnecker meets the independence criteria of Rule 10C-1 of the Securities and Exchange Act of 1934, as amended. Longnecker does not provide any other services to the Company.

In 2013, 2014 and 2015, Longnecker advised the Company on:

- selection of a peer group for purposes of analyzing and comparing executive compensation data and benchmarking Company performance;
- executive officer base salaries and incentive compensation for 2013, 2014 and 2015;
- development of STIP (defined below) metrics for 2013, 2014 and 2015;
- termination of the RC Plan (defined below);
- replacement of the RC Plan with the LTIP (defined below) and a profit sharing incentive plan for our employees; and
- the compensation aspects of employment agreement terms for our executive officers, as described below.

Overview - Executive compensation philosophy

Our philosophy for executive compensation is set forth in a document entitled "Executive Compensation Philosophy and Objectives" (the "EC Philosophy") adopted by the Compensation Committee on January 2, 2014, which replaced our Amended and Restated Advanced Emissions Solutions, Inc. Executive Compensation Plan (the "EC Plan"). The EC Philosophy is designed to support achievement of our strategies and goals, thereby creating long-term value for our stockholders and customers and ensuring our ability to recruit and retain highly qualified executive employees. Our EC Philosophy:

- Supports our Company’s vision, mission, strategy, and values to generate profitability and sustained growth in the long-term best interests of our stockholders.
- Aligns executive compensation with measures of performance tied to the strategic and operational performance of the business and stockholder returns.

- Rewards executives on the basis of merit for individually and collectively achieving a leadership culture, innovation and excellence within the Company, and delivering sustained high performance of the Company, taking into consideration each executive's qualifications, level of responsibility and contribution to the Company's long term performance.
- Encourages competency-building by linking career development, performance management and compensation rewards.
- Attracts and retains the best executive talent and a highly qualified diverse workforce within a non-discriminatory, merit-based compensation program.
- Utilizes external compensation data to benchmark comparable positions in similar industries and companies within our geographical region as one key factor in establishing the competitiveness of our executive salaries, incentives and benefits.

Incentive cash bonuses and long term equity incentive awards consistent with the EC Philosophy are made under our Amended and Restated 2007 Equity Incentive Plan, as amended (the "2007 Plan"). We believe that our compensation policies and practices do not motivate excessive or imprudent risk-taking. We note the following key aspects of our compensation policies and practices in making this determination:

- The Company's EC Philosophy is based on balanced performance metrics that promote disciplined progress towards long-term Company goals in addition to the short-term health of the organization;
- We do not offer significant short-term incentives that might drive high-risk investments at the expense of long-term Company value; and
- The Company's compensation programs are weighted towards offering long-term incentives.

Because of these factors, we believe that our compensation policies and practices, both for our employees generally and for our executive officers, do not create risks that are reasonably likely to have a material adverse effect on the Company.

The Company provides its stockholders with the opportunity to cast an advisory vote on annual executive compensation (a "say-on-pay proposal"). A say-on-pay proposal will generally be put forth annually; however, because the Company did not hold an Annual Meeting of Stockholders in 2014 or 2015, the Company expects to put forth a say-on-pay proposal regarding the executive compensation for each of the fiscal years ended December 31, 2013 and 2014 and for the fiscal year ending December 31, 2015, at its Annual Meeting of Stockholders to be held in 2016. The Compensation Committee reviewed the results of the say-on-pay proposal from the June 2013 Annual Meeting of shareholders, where approximately 91.4% of the votes cast on the say-on-pay proposal were in favor of the proposal. The Compensation Committee will continue to consider the results of the Company's say-on-pay votes when making future compensation decisions for the Company's executive officers, including named executive officers.

Compensation of Named Executive Officers

The Company's named executive officers ("NEOs") for 2014 were:

Name	Age	Positions
Dr. Michael D. Durham	65	President and Chief Executive Officer
L. Heath Sampson	43	Chief Financial Officer and Treasurer
Mark McKinnies	62	Chief Financial Officer and Secretary
C. Jean Bustard	57	Chief Operating Officer
Jonathan R. Lagarenne	55	Executive Vice President
Sharon M. Sjostrom	48	Chief Product Officer

The Company's NEOs for 2013 were:

Name	Age	Positions
Dr. Michael D. Durham	64	President and Chief Executive Officer
Mark McKinnies	61	Chief Financial Officer and Secretary
C. Jean Bustard	56	Chief Operating Officer
Jonathan R. Lagarenne	54	Executive Vice President
Sharon M. Sjostrom	47	Chief Technology Officer

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The compensation for our NEOs currently consists of three elements: base salaries, annual incentive cash bonuses and long term equity incentive awards in the form of restricted shares of our Common Stock (“RSA's”) and, Performance Share Units (“PSU's”) and, for Mr. Sampson in 2015, options to purchase our Common Stock (“Stock Options”) and Stock Appreciation Rights (“SAR's”). Executive compensation is designed to reward performance in a straightforward and transparent manner.

Base Salaries

Base salary is defined as ongoing, cash compensation paid bi-weekly based on such factors as job responsibilities, external competitiveness, and the individual’s experience and performance. In consultation with Longnecker, the Compensation Committee sets pay ranges based on the market where the Company competes for similar positions, with consideration given for employees serving similar functions in comparable companies. Base salary is typically increased annually based on performance and cost of labor/living increases. In consultation with Longnecker, the Compensation Committee considers the size of and whether to grant merit increases based on data from comparable companies, as well as review of their annual performance and meeting objectives. The Company attempts to ensure middle market pay for solid performers and to consider higher levels of pay for outstanding performers. The Company does not intend to be a market leader in base compensation.

For 2011, Dr. Durham’s base salary was $405,000, Mr. McKinnies’ base salary was $300,000 and Ms. Bustard’s base salary was $255,000. On January 25, 2011, the Board appointed Ms. Sjostrom as Chief Technology Officer and, based on data from Mountain States Employers Council ("MSEC"), approved an increase in her base salary to $200,000, effective as of January 1, 2011.

On January 16, 2012, the Compensation Committee approved an increase in Dr. Durham’s base salary to $485,000, in Mr. McKinnies’ base salary to $325,000, in Ms. Bustard’s base salary to $275,000, in Ms. Sjostrom’s base salary to $220,000, and increases in the salaries of the Company’s other executive officers, all effective as of January 1, 2012 based on data from MSEC and performance of the Company’s executive officers.

On January 28, 2013, the Compensation Committee approved an increase in Dr. Durham’s base salary to $504,400, in Mr. McKinnies’ base salary to $338,000, in Ms. Bustard’s base salary to $290,000, in Mr. Lagarenne’s base salary to $301,600, in Ms. Sjostrom’s base salary to $228,800 and increases in the salaries of the Company’s other executive officers, all effective as of January 1, 2013 based on the Compensation Committee’s review of market data and recommendations from Longnecker.

On November 11, 2013, the Compensation Committee approved an increase in Dr. Durham’s base salary to $519,532, in Mr. McKinnies’ base salary to $348,140, in Ms. Bustard’s base salary to $298,700, in Mr. Lagarenne’s base salary to $310,648, in Ms. Sjostrom’s base salary to $235,664 and increases in the salaries of the Company’s other executive officers, all effective as of January 1, 2014 based on the Compensation Committee’s review of market data and recommendations from Longnecker.

On July 29, 2014, the Compensation Committee approved a base salary of $350,000 for Mr. Sampson for his appointment as Chief Financial Officer effective August 27, 2014, based on the Compensation Committee’s review of market data and recommendations from Longnecker.

On April 24, 2015, the Compensation Committee approved an increase in Mr. Sampson’s base salary to $500,000 effective April 1, 2015 given his promotion to President and Chief Executive Officer (in addition to his continued role as Chief Financial Officer until Mr. Gabbard’s appointment as Chief Financial Officer in June 2015) based on the Compensation Committee’s review of market data and recommendation from Longnecker.

Incentive Compensation

The Company utilizes incentive compensation in the form of stock and equity awards to motivate executives and align executive and stockholder interests. Incentive amounts are set based on job position and market practices. Incentives paid in cash are subject to payroll taxes and other customary withholdings. In addition to awards under the Company's Short-Term Incentive Plan ("STIP") and Long-Term Incentive Plan ("LTIP"), we generally grant restricted stock awards to new executive officers.

The STIP is designed to motivate executives to achieve critical short-term goals, typically within a twelve month period, that are expected to contribute to the long-term health and value of the Company. Incentives may be paid in cash or equity as determined by the Compensation Committee. For 2011, 2012 and 2013, STIP awards were made under the EC Plan. On February 12, 2014, the Compensation Committee approved Amendment No. 2 to the Company's 2007 Plan, which amended the 2007 Plan to make non-material changes to specifically allow for cash awards, such as under the STIP, and establish certain procedures for such cash awards. STIP awards for 2014 were made under the 2007 Plan. The Compensation Committee adopted the Executive Short Term Incentive Plan ("ESTIP") on September 9, 2015 to further establish terms and conditions for cash awards made under the STIP, and the Compensation Committee expects to make future STIP awards under the 2007 Plan

and ESTIP. No awards have been made for 2015 under the STIP at this time, but the Compensation Committee did approve performance metrics at its meeting on September 9, 2015, the level of achievement of which it may or may not consider in making discretionary cash awards under the STIP for 2015 at a later time.

The LTIP is designed to align executives' interests with those of the Company's stockholders. Equity awards are the primary long-term incentive instrument and may be in the form of RSA's, PSU's, Stock Options or SAR's. Equity awards may vest immediately, over time based on continuous service, or over time based on achievement of certain performance goals, as determined by the Compensation Committee, considering accounting and regulatory restrictions and the financial condition of the Company. LTIP awards are made under the 2007 Plan.

From time to time the Board or Compensation Committee may recognize exemplary performance of any executive with a cash or equity award. Exemplary performance is performance that the Board or Compensation Committee determines to have required significant effort and commitment and is determined to have had a significant positive impact on the current or future performance of the organization. No such payments were made in 2014, 2013, 2012 or 2011 other than the RC Bonus described below.

The stock portions of the 2014, 2013, 2012 and 2011 incentive awards are shown below in the Summary Compensation table under the "Stock Awards" column. The cash portions of the 2014, 2013, 2012 and 2011 incentive awards are shown below in the Summary Compensation table under the "Non-Equity Incentive Plan Compensation" column.

STIP Incentive Compensation under the EC Plan for 2011 and 2012

The performance metrics under the EC Plan for incentive compensation prior to 2013 focused on specific business objectives set during the first half of each year. Objectives are those metrics that management and the Board determine are most important to the short and long-term health and value of the organization. The objectives for 2012 were based on revenues, gross margins, ratio of contracts awarded for certain products, share price performance, general and administrative expense rate, commercial advancement of certain products, CO_2 Capture projects, new product development and exploration of new business opportunities. Potential incentive amounts for 2012 performance were established at 50% and 40% of base salary for the CEO and other members of the executive team, respectively.

Annual incentive awards under the EC Plan for the CEO and the other executive officers as a group (totaling nine individuals in 2011 and 2012) were made by the Compensation Committee in January or February of each year with respect to the previous year's performance. The CEO had the discretion to allocate the incentive pool set by the Committee to the other executive officers, subject to final approval by the Committee Chairman over such allocations. Annual incentives, if any, were generally planned for payment by February 28th of the calendar year following the incentive period. These incentives can be deferred and paid to a designated beneficiary, although that has not been the case with any incentives awarded thus far. In early 2012 and 2013, the Compensation Committee approved incentive awards earned by the executive officers based on 2011 and 2012 performance, respectively, under the EC Plan with a value of $724,810 and $569,487, respectively, in the aggregate for the CEO and the other executive officers as a group. The Compensation Committee allocated 28% and 27% of the 2011 and 2012, respectively, incentive awards to the CEO and gave the CEO discretion to allocate the remaining amounts to the other executive officers.

STIP Incentive Compensation under the EC Plan for 2013

The performance metrics under the STIP for 2013 were based on the level of achievement, based on the Company's budget, of earnings and retained ton tax credits, "value added revenue" (which is a non-GAAP financial figure based on total revenue less refined coal sales of Clean Coal Solutions, LLC, an entity whose financial statements were consolidated with the Company prior to the restatements of such financial statements set forth herein), the Company's

goal regarding sales of dry sorbent injection systems and activated carbon injection equipment and individual performance goals. The threshold, target and maximum payouts under the STIP were based on achieving 80%, 100% and 125% of each measure, respectively. STIP awards for each executive were based on a percentage of his or her base salary from 25% up to a maximum of 200%.

Named Executive Officer	Percentage of Base Salary Threshold	Target	Maximum
Michael D. Durham	50%	100%	200%
Mark H. McKinnies	33%	65%	130%
C. Jean Bustard	33%	65%	130%
Jonathan R. Lagarenne	33%	65%	130%
Sharon M. Sjostrom	25%	50%	100%

In early 2014, the Compensation Committee approved incentive awards earned by the executive officers of the Company and ADA (totaling 10 individuals) under the STIP based on 2013 performance of $1,797,384 in the aggregate.

STIP Incentive Compensation under the 2007 Plan for 2014

The performance metrics under the STIP for 2014 were based on the level of achievement, based on the Company's budget, of earnings and retained ton tax credits, value added revenue, the Company's goal regarding sales of dry sorbent injection systems and activated carbon injection equipment and individual performance goals. The threshold, target and maximum payouts under the STIP were based on achieving 80%, 100% and 125% of each measure, respectively. STIP awards for each executive were based on a percentage of his or her base salary from 25% up to a maximum of 200%.

Named Executive Officer	Percentage of Base Salary Threshold	Target	Maximum
Michael D. Durham	50%	100%	200%
Mark H. McKinnies	33%	65%	130%
C. Jean Bustard	33%	65%	130%
Jonathan R. Lagarenne	33%	65%	130%
Sharon M. Sjostrom	25%	50%	100%

On August 27, 2014, Mr. Sampson was awarded two short term cash incentive bonuses as part of his initial compensation package, which awards were amended and restated on March 3, 2015. Each award was for approximately $79,000 and would be earned upon (1) completion of the Company's year-end 2013 financial statements and (2) filing of this Form 10-K, respectively. On December 11, 2015, the Compensation Committee further amended the second award to be in the amount of approximately $379,000 in recognition of Mr. Sampson's work relative to the Company's organizational restructuring in 2015, with payment subject to the completion of certain events including the contemplated monetization transactions by CCS and the filing of this Form 10-K.

On April 1, 2015, the Compensation Committee approved incentive awards earned by current and former executive officers of the Company (totaling the following seven individuals: Ms. Amrhein, Ms. Bustard, Ms. Sjostrom and Messrs. Durham, Lagarenne, Mattison and McKinnies) under the STIP based on 2014 performance of $655,283 in the aggregate. Due to the fact that the audited financial statements for the fiscal year ended December 31, 2014 were not available at that time, the Company's performance regarding two of the 2014 STIP metrics was not yet determinable. Those two metrics relate to earnings and retained ton tax credits and value added revenue. The Compensation Committee subsequently made a determination on November 17, 2015 based on internally prepared restated financial statements for 2014 that no payout will be made for the two remaining metrics.

STIP Incentive Compensation under the 2007 Plan and ESTIP for 2015

On September 9, 2015, the Compensation Committee approved a performance metric under the ESTIP for 2015 based on the level of revenue achieved by the Company. The Committee has not yet granted awards for 2015 under the ESTIP and the performance metric is subject to change. The Committee expects that the threshold, target and

maximum payouts under the ESTIP will be 50%, 100% and 150%, respectively, determined by the level of achievement of the final approved measure, and that 2015 ESTIP awards for each executive, if any, will be based on a percentage of his or her base salary up to a maximum target amount of 50%. Additionally, the Committee approved a performance schedule whereby amounts that may be earned by individual participants may increase or decrease based on performance of individual performance goals. Messrs. Gabbard and Sampson received equity awards, described below, in lieu of participation in any 2015 ESTIP. In November 2015, the

Compensation Committee verified that measures, targets and incentives under the ESTIP for 2015 are realistic, align with ethical values and performance related to internal controls and do not encourage excessive risk-taking.

LTIP Peer Group Companies and Benchmarking

The Compensation Committee, in consultation with Longnecker, establishes the group of peer companies for purposes of benchmarking the Company's stock price performance for LTIP awards. The peer group is reviewed and adjusted on an annual basis or as needed to reflect changes to the Company and the potential peer group to reflect such things as merger and acquisition activity, revenue projections and strategic initiatives. LTIP awards include provisions to accommodate changes in the peer group such as, for example, if one peer company merges with another. The threshold, target and maximum payout amounts for equity awards that vest based on the Company's stock price performance benchmarked against the peer group of companies ("Peer Group Equity Awards") are 50%, 100% and 200%, respectively.

Peer Group Equity Award Payout Achievement Levels (Approximate Percentiles)

LTIP Year	Threshold	Target	Maximum
2013	29th	57th	99th
2014	29th	57th	99th
2015	24th	53rd	99th

For Peer Group Equity Awards granted in 2013 and 2014, the group of peer companies was:

American Pacific Corporation	Calgon Carbon Corporation
CECO Environmental Corp.	Future Fuel Corp.
Fuel-Tech, Inc.	Flotek Industries Inc.
GSE Holdings Inc.	Hawkins Inc.
Headwaters International	KMG Chemicals Inc.
PMFG, Inc.	Rentech, Inc.
Westmoreland Coal Co.	Met-Pro Corp.

Met-Pro Corp. was originally included in the group of peer companies for Peer Group Equity Awards granted in 2014 but was removed from the group by the Compensation Committee on February 12, 2014 due to the merger between Met-Pro Corp. and CECO Environmental Corp. on August 27, 2013.

For Peer Group Equity Awards granted in 2015, the group of peer companies was:

American Vanguard Corp.	Calgon Carbon Corporation
CECO Environmental Corp.	Clean Energy Fuels Corp.
EnerNOC, Inc.	FutureFuel Corp.
Fuel-Tech, Inc.	Flotek Industries Inc.
Hawkins Inc.	Headwaters International
KMG Chemicals Inc.	Lydall Inc.
PMFG, Inc.	Rentech, Inc.
Silver Springs Networks, Inc.	Solazyme, Inc.

The threshold, target and maximum amounts for equity awards that vest based on the Company's stock price performance benchmarked against the Russell 3000 index ("Index Equity Awards") are 60%, 100% and 200%, respectively.

For Index Equity Awards granted in 2013, 2014 and 2015, the threshold payout is achieved if the Company's performance is no more than 10% below the performance of the Russell 3000 Index, target payout is achieved at even performance with the index, and maximum payout is achieved if the Company's performance is at least 40% above the

performance of the index.

LTIP Incentive Compensation under the 2007 Plan for 2013

In 2013 under the LTIP, ten executives, five of which were NEO's and listed below, were granted RSA's that vest annually at a rate of one-third over a three year vesting period subject to continuous service and PSU's that vest on December 31, 2015, the end of the three year performance period, subject to the Company's total stockholder return as compared to a group of peer companies determined by the Compensation Committee (target payout at 53rd percentile) and the Russell 3000 Index (target payout at even performance against the index). LTIP awards for each executive are based on a percentage of his or her base salary from 65% up to a maximum of 375%.

	Percentage of Base Salary	
Named Executive Officer	Target	Maximum
Michael D. Durham	250%	375%
Mark H. McKinnies	150%	225%
C. Jean Bustard	75%	112.5%
Jonathan R. Lagarenne	75%	112.5%
Sharon M. Sjostrom	65%	97.5%

LTIP Incentive Compensation under the 2007 Plan for 2014

On January 2, 2014, April 21, 2014 and August 27, 2014, seven executives, five of which were NEO's and listed below (excluding Mr. Sampson), another executive and Mr. Sampson, respectively, were granted RSA's that vest annually at a rate of one-third over a three year vesting period subject to continuous service and PSU's that vest on December 31, 2016, the end of a three year performance period, subject to the Company's total stockholder return as compared to a group of peer companies determined by the Compensation Committee (target payout at 50th percentile) and the Russell 3000 Index (target payout at even performance against the index). LTIP awards for each executive are based on a percentage of his or her base salary from 65% up to a maximum of 375%. On August 27, 2014, the Compensation Committee granted Mr. Sampson, upon his appointment as Chief Financial Officer and Treasurer, RSA's and PSU's subject to the vesting conditions described above.

	Percentage of Base Salary	
Named Executive Officer	Target	Maximum
Michael D. Durham	250%	375%
Mark H. McKinnies	150%	225%
L. Heath Sampson (pro-rated)	150%	225%
C. Jean Bustard	75%	112.5%
Jonathan R. Lagarenne	75%	112.5%
Sharon M. Sjostrom	65%	97.5%

LTIP Incentive Compensation under the 2007 Plan for 2015

On March 3, 2015, six executives, five of which were NEO's and listed below, were granted RSA's that vest annually at a rate of one-third over a three year vesting period subject to continuous service and PSU's that vest on December 31, 2017, the end of a three year performance period, subject to the Company's total stockholder return as compared to a group of peer companies determined by the Compensation Committee (target payout at 50th percentile) and the Russell 3000 Index (target payout at even performance against the index). On June 12, 2015, Mr. Gabbard was granted RSA's that vest on the achievement of certain milestones regarding the Company's Securities Exchange Commission ("SEC") reporting obligations subject to continuous service. LTIP awards for each executive are based on a percentage of his or her base salary from 58.5% up to a

maximum of 337.5%, as noted below.

Named Executive Officer	Percentage of Base Salary Target	Maximum
Michael D. Durham	225%	337.5%
A. Bradley Gabbard	125%	125%
L. Heath Sampson	135%	202.5%
Jonathan R. Lagarenne	67.5%	101.25%
Sharon M. Sjostrom	58.5%	87.75%

Additional Executive Compensation Plans

Refined Coal Activities Supplemental Compensation Plan

On April 20, 2010, the Compensation Committee of our Board adopted the Refined Coal Activities Supplemental Compensation Plan, which was amended and restated on November 9, 2011 (the “RC Plan”). The RC Plan provided for the allocation of annual incentive cash awards in an amount equal to seven percent of the “Net Contribution Margin” (as defined in the RC Plan) resulting from our “Refined Coal Activities” (as defined in the RC Plan), which at the time were activities of Clean Coal Solutions, LLC ("CCS") as its financial statements were consolidated with ours prior to the restatement of financial statements set forth herein. The amount of each incentive award was calculated and paid annually following the close of each fiscal year and allocated as follows: three percent of Net Contribution Margin, or 42.85% of the amount of the award, was allocated to our Chief Executive Officer, Dr. Michael Durham, and four percent of Net Contribution Margin, or 57.15% of the amount of the award, was allocated to those eligible RC Plan participants selected by the CEO based on their contributions to our Refined Coal Activities during the prior fiscal year. The RC Plan was amended in November 2011 to clarify the “Revenue” and “Expense” components that were used to calculate the Net Contribution Margin and to include “Claw-Back Rights” pursuant to which we would be entitled to a return of amounts paid out under the RC Plan if we were required to refund any of the cash reflected in Revenue upon which an award was made. In February 2012, the Compensation Committee limited the “Claw-Back Rights” to apply only to our executive officers, set a minimum threshold for their application and provided that any claw-back would be an offset against any future incentive compensation. These changes were made based on concerns as to the possible negative impact any exercise of such rights may have on employee morale, the costs and difficulty of administering any claw-back and the unlikelihood that any such claw-back right may arise.

Pursuant to the terms of the RC Plan, seven percent of the Net Contribution Margin, as defined in the RC Plan, received from the Company’s Refined Coal Activities funded the annual RC Plan incentive pool. In 2010 and 2011, the Company awarded $430,000 and $283,000, respectively. In March 2013, the Compensation Committee approved the calculation of an award amount of approximately $223,000 for the Company's executive officers under the RC Plan based on Refined Coal Activities in 2011 due to cash distributions from CCS in 2013.

During 2012, the Compensation Committee discussed various changes to the RC Plan based on input from senior management and in March 2013 terminated the RC Plan in favor of the LTIP. In lieu of an award under the RC Plan with respect to Refined Coal Activities in 2012, on March 20, 2013, the Compensation Committee approved a discretionary bonus in the aggregate amount of approximately $723,000 based on the calculations that would have been made pursuant to certain of the changes discussed during 2012, including inclusion of an award based on tax credits earned by CCS during 2012 due to Refined Coal Activities.

CCS Activities Supplemental Bonus

On November 9, 2011, the Compensation Committee approved a $1 million discretionary bonus (outside of the RC Plan) (the “2011 RC Bonus”) to reward the management team and employees for their work that resulted in the $60 million investment by GSFS Investments I Corp., an affiliate of the Goldman Sachs Group, Inc. in CCS. The discretionary bonus included a cash portion and up to $300,000 to be paid in shares of common stock reserved under the 2007 Plan. The shares were issued to the Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan, which is a plan qualified under Section 401(k) of the Code (the “401(k) Plan”), for eligible recipients (including all executive officers) and issued directly to recipients not eligible to participate in the Company’s 401(k) Plan.

Dr. Durham received $300,000 ($10,054 in common stock and the remainder in cash), and he allocated the remaining amount to the other executive officers, a contractor and employees.

2015 Equity Awards to CEO under the 2007 Plan

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On June 6, 2015, the Compensation Committee approved a grant of Stock Options and SAR's to Mr. Sampson in recognition of his promotion to President and Chief Executive Officer. Mr. Sampson's Stock Options to purchase 56,250 shares of the Company's Common Stock are fully vested. His remaining Stock Options to purchase 243,750 shares of the Company's Common Stock are subject to stockholder approval of Amendment No. 4 to the 2007 Plan on or before June 5, 2017, 200,000 of which vest in two tranches based on the earlier of the achievement of specified levels of performance of the Company's common stock or eighteen and thirty six months after the grant date, respectively. These remaining Stock Options were granted in "tandem" with an equivalent number of SAR's, which only vest in the event the Stock Options expire as a result of Amendment No. 4 to the 2007 Plan not being approved by stockholders on or before June 5, 2017, subject to the same vesting conditions of the Stock Options. The foregoing awards to Mr. Sampson at the time of his promotion were made in lieu of any additional awards under the ESTIP or LTIP for 2015.

2016 Equity Awards to CEO under the 2007 Plan

On December 11, 2015, the Compensation Committee approved the grant of a Restricted Stock Award for 72,000 shares of the Company's Common Stock effective as of January 4, 2016 to Mr. Sampson in recognition of the importance of Mr. Sampson continuing to serve the Company as CEO. The Restricted Stock Award will vest annually at a rate of one-third over a three-year vesting period subject to Mr. Sampson's continuous service.

Other Aspects of Executive Employment

In the event of a restatement of income, any overpayments of incentive pay made to executives based on such restatement of income may be reclaimed at the discretion of the Compensation Committee. In this Form 10-K for the fiscal year ended December 31, 2014 and the date hereof, the Company restated its financial statements for the year ended December 31, 2012, and quarter information for the first three quarters of 2013; the Compensation Committee has not yet determined whether there was an overpayment of incentive pay as a result of such restatements. On November 17, 2015, the Board and the Compensation Committee discussed incentive compensation amounts paid in 2013 and 2014, respectively, and decided to take no action with regard to clawbacks at that time.

We generally maintain key person term insurance for our CEO in the amount of $5 million and for our CPO in the amount of $2 million. The policies may be assigned to the individuals upon termination of employment (other than for cause) whereupon the executive would be responsible for any premium payments.

Executives are encouraged to own a number of shares of stock equal to a value of at least one (1) times the annual base salary. Ownership is calculated considering holdings of restricted stock and performance share units, whether or not such holdings have vested, private holdings, shares held in retirement accounts and other shares attributed the executive in accordance with Section 16 of the Securities Act of 1933, as amended (the "Securities Act"). Holding of options also will be considered in the ownership calculation by adding the value of the spread of in-the-money options to the total value of other holdings. The Compensation Committee reviewed executive equity ownership against the ownership goals for our executives in September 2015 and confirmed all executives met the ownership guidelines at that time.

So long as the stock ownership guidelines are met, executives may sell unrestricted stock they have owned for a period greater than 12 months, and may exercise vested stock options and sell shares to pay for the exercise price and withholding tax, except as otherwise provided for in the underlying stock option agreement. It is preferred that executives own stock for a period greater than twelve months before selling it. The Company must be advised of any sale of stock options or shares of stock at least 30 days in advance or the executive must be engaged in a pre-announced program sale in compliance with federal securities laws, and such sales must be made in compliance with our insider trading policy.

Pursuant to Section 16(b) of the Exchange Act, executives leaving the Company may be required to hold their stock in the Company for at least six months after leaving the Company.

The 401(k) Plan is available to all eligible employees, including named executive officers. Pursuant to that plan, we make matching contributions to each eligible employee's account up to 7% of the employee's eligible compensation, and may make, at the discretion of the Board, contributions based on the profitability of the Company to those

accounts. Beginning in June 2009 through the first quarter of 2014, we made our matching contributions in shares of the Company's common stock. Subsequent to the first quarter of 2014, we made our matching contributions in cash. No discretionary contributions were made to the 401(k) Plan in 2011, 2012 and 2013 other than as discussed above. Investments in an employee's account may be made in stocks, bonds, mutual funds and other investments permitted by the Plan's administrator.

Employee contributions to the 401(k) Plan are 100% vested. Company contributions become 100% vested if an employee's employment ends after the date such employee attains normal retirement age (age 65), dies or becomes disabled. If an

employee’s employment is terminated prior to the date the employee attains normal retirement age (65) or dies or becomes disabled, the Company’s matching contributions and any discretionary contributions will vest according to the schedule below:

Years of Vesting Service	Vested Percentage	
Less than 2	—	%
2	20	%
3	40	%
4	60	%
5	80	%
6 or more	100	%

Summary Compensation Table

The following table presents information regarding compensation earned by or awards to our NEOs during fiscal years 2014, 2013, 2012 and 2011:

Name and Principal Position	Year	Salary ($)	Bonus ($) (1)	Stock Awards ($) (2)	Non-Equity Incentive Plan Compensation ($) (3)	All Other Compensation ($) (4)	Total ($)
Dr. Michael D. Durham	2014	519,532	—	1,599,621	248,094	18,200	2,385,447
President and Chief Executive Officer	2013	504,400	309,903	1,518,659	643,350	17,947	2,994,259
	2012	485,000	—	—	151,000	22,532	658,532
	2011	405,000	289,946	—	323,418	27,558	1,045,922
L. Heath Sampson	2014	105,000	—	373,567	—	—	478,567
Chief Financial Officer and Treasurer	2013	—	—	—	—	—	—
	2012	—	—	—	—	—	—
	2011	—	—	—	—	—	—
Mark McKinnies (8)	2014	294,809	—	643,217	85,432	941,764	1,965,222
Chief Financial Officer and Secretary	2013	338,000	92,233	675,423	269,142	17,952	1,392,750
	2012	325,000	—	—	80,757	22,096	427,853
	2011	300,000	—	—	158,536	27,563	486,099
C. Jean Bustard	2014	301,739	—	275,878	73,300	1,018,375	1,669,292
Chief Operating Officer	2013	290,000	78,043	289,776	230,682	17,911	906,412
	2012	275,000	—	—	68,333	18,482	361,815
	2011	255,000	—	—	140,755	19,301	415,056
Jonathan R. Lagarenne	2014	310,648	—	286,948	96,424	18,200	712,220
Executive Vice President	2013	301,600	32,920	301,364	213,438	92,242	941,564
	2012	158,385	—	365,400	42,035	—	565,820
	2011	—	—	—	—	—	—
Sharon M. Sjostrom	2014	235,664	—	188,644	56,269	15,522	496,099
Chief Product Officer	2013	228,800	62,435	198,075	144,317	15,676	649,303
	2012	220,000	—	—	54,666	15,456	290,122
	2011	200,000	—	—	79,023	22,935	301,958

(1) Amounts in 2011 represent a discretionary bonus paid as a result of the $60 million investment made by GSFS Investments I Corp., an affiliate of the Goldman Sachs Group, Inc. in CCS. Amounts in 2013 represent a discretionary bonus in lieu of an award under the RC Plan relating to refined coal activities.

(2) The amounts in this column represent the aggregate grant date fair values of PSU and RSA awards computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, "Compensation-Stock Compensation" (FASB ASC Topic 718"). These grant date fair values have been determined based on the assumptions and methodologies discussed in Note 14 of the Consolidated Financial Statements included in our Form 10-K for the fiscal year ended December 31, 2014. PSU awards are subject to market-based performance conditions relating to the relative placement of the Company's total stockholder return ("TSR") for the three-year performance period with approximately 75% of the award based on the relative performance of the

Company's TSR performance compared to the respective TSRs of a specified group of peer companies and the remaining portion of the award based on the Company's TSR performance compared to the Russell 3000 Index. The table below presents the PSU awards for the fiscal year ended December 31, 2014 and 2013 based on an earned percentage of 100% (grant date fair value disclosed above) and an earned

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percentage of 200%, which is the highest level of performance conditions that can be achieved. The difference between the “Stock Award” amounts in the table above and the “PSU-if earned, target ($)” amounts in the table below represents the grant date fair values attributable to the RSA awards.

Name and Principal Position	Year	PSU - if earned, target ($)	PSU - if earned, maximum ($)
Dr. Michael D. Durham	2014	950,212	1,900,424
	2013	1,049,309	2,098,618
L. Heath Sampson	2014	122,257	244,514
	2013	—	—
Mark McKinnies (8)	2014	382,086	764,172
	2013	421,911	843,822
C. Jean Bustard	2014	163,862	327,724
	2013	181,012	362,024
Jonathan R. Lagarenne	2014	170,454	340,908
	2013	188,251	376,502
Sharon M. Sjostrom	2014	112,059	224,118
	2013	123,730	247,460

(3) The amounts in the column represent the bonuses earned during 2014, 2013, 2012, and 2011 performance periods under the STIP.

(4) The All other compensation amounts earned by each NEO are made up of the amounts in the table below:

Name	Year	Matching contributions to 401(k) ($)	Severance ($)	Other ($) (9)	Total ($)
Dr. Michael D. Durham	2014	18,200	—	—	18,200
	2013	17,947	—	—	17,947
	2012	22,532	—	—	22,532
	2011	17,504	—	10,054	27,558
Mark McKinnies (5) (8)	2014	18,200	923,564	—	941,764
	2013	17,952	—	—	17,952
	2012	22,096	—	—	22,096
	2011	17,509	—	10,054	27,563
C. Jean Bustard (6)	2014	18,200	1,000,175	—	1,018,375
	2013	17,911	—	—	17,911
	2012	18,482	—	—	18,482
	2011	9,247	—	10,054	19,301
Jonathan R. Lagarenne (7)	2014	18,200	—	—	18,200
	2013	12,029	—	80,213	92,242
	2012	—	—	—	—
	2011	—	—	—	—
Sharon M. Sjostrom	2014	15,522	—	—	15,522
	2013	15,676	—	—	15,676
	2012	15,456	—	—	15,456
	2011	14,730	—	8,205	22,935

(5) Pursuant to the Retirement and Non-Competition Agreement, Mr. McKinnies was due 1) severance of up to two years' base salary for a total amount of $696,280, 2) costs of obtaining replacement medical and dental coverage for a total amount of $22,750, and 3) the early vesting of all remaining PSU and RSA awards resulting in an incremental fair value of $151,752 and $52,782 respectively. The base salary and equity award amounts are subject to the terms and conditions contained with the Retirement and Non-Competition Agreement.
(6) Pursuant to the Retirement and Non-Competition Agreement, Ms. Bustard was due 1) severance of up to two years' base salary for a total amount of $597,400, 2) costs of obtaining replacement medical and dental coverage for a total amount of $24,385, and 3) the early vesting of all remaining PSU and RSA awards resulting in an incremental fair value of $85,521 and $292,869 respectively.
(7) The Company paid expenses in conjunction with Mr. Lagarenne's relocation to Colorado and provided an additional gross-up amount to cover the tax withholding obligation in the amount of $80,213.
(8) This amount includes severance paid through December 31, 2014. Subsequent to December 31, 2014, additional amounts were paid to Mr. McKinnies until December 2015. Such additional amounts were no longer subject to the fulfillment of future obligations described below under the subheading "Retirement of McKinnies and Bustard in 2014".
(9) Amounts in 2011 represent a discretionary bonus paid in common stock as a result of the $60 million investment made by GSFS Investments I Corp., an affiliate of the Goldman Sachs Group, Inc. in CCS.

Equity Compensation Plans (Stock Incentive Plans)

Pursuant to the Agreement and Plan of Merger dated as of March 25, 2013, the Company assumed the equity incentive plans of ADA and all awards made under such plans. On August 6, 2013, the Company authorized the General Amendment of Company Plans, which amended those plans listed below to refer to the Company and the Company’s common stock, par value $0.001, and change the governing law from Colorado to Delaware.

2003 Stock Option Plan

During 2003, we adopted the 2003 ADA-ES, Inc. Stock Option Plan, which was originally referred to as the 2002 Stock Option Plan (the “2003 Plan”), and reserved 800,000 shares of common stock for issuance under the plan. In general, all options granted under the 2003 Plan expire ten years from the date of grant unless otherwise specified by the Company’s Board. The exercise price of options was determined by the Compensation Committee of the Board at the time the option was granted of not less than 100% of the fair market value of a share of our common stock on the date the option is granted. This plan was replaced by the 2007 Equity Incentive Plan described below, and as a result, 153,818 shares of common stock that were originally reserved for issuance upon exercise of options grantable under the 2003 Plan were removed from the 2003 Plan. As of December 31, 2014, there were no options outstanding and exercisable under this plan.

2004 ESO Plan

During 2004, we adopted the 2004 ESO Plan, which did not require stockholder approval. The 2004 ESO Plan authorized the grant of up to 400,000 options to purchase shares of our common stock to our executive officers. The 2004 ESO Plan is intended to promote our growth and profitability by awarding options to purchase our common stock in exchange for services performed and to be performed in the future. Options granted under the 2004 ESO Plan are generally intended to be non-qualified stock options (“NQSO”) for federal income tax purposes. The 2004 ESO Plan was terminated on August 23, 2014. The 2004 ESO Plan is administered by our Compensation Committee. In general, the exercise price of an option will be determined by the Compensation Committee at the time the option is granted and will not be less than 100% of the fair market value of a share of our common stock on the date the option is granted. Under the 2004 ESO Plan, the grant of options was limited to 120,000 per individual. The options were exercisable over a 10-year period based on a vesting schedule, typically between 5% and 20% per year, which could be accelerated based on performance of the individual recipients as determined by our Compensation Committee. During 2004, all 400,000 options were granted under the 2004 ESO Plan. In 2009, all options were fully vested. As of December 31, 2014, there were no options outstanding and exercisable under this plan.

2005 Directors’ Compensation Plan

During 2005 we adopted the 2005 Directors’ Compensation Plan (the “2005 Plan”), which authorized the issuance of shares of common stock and the grant of options to purchase shares of our common stock to non-management directors. The 2005 Plan was approved by our stockholders at the 2005 Annual Meeting. The 2005 Plan is intended to

advance our interests by providing eligible non-management directors an opportunity to acquire or increase an equity interest in the Company, create an increased incentive to expend maximum effort for our growth and success and encourage such eligible individuals to continue to service the Company. The 2005 Plan provides a portion of the annual compensation to our non-management directors in the form of awards of shares of common stock and vesting of options to purchase common stock for services performed for the Company. Under the 2005 Plan, the award of stock is limited to 2,000 shares per individual per year, and the grant of options is limited to 10,000 per individual in total. The aggregate number of shares of common stock reserved for issuance under the 2005 Plan

totals 180,000 shares (100,000 in the form of stock awards and 80,000 in the form of options). The exercise price is the market price on the date of grant, the shares of common stock underlying the option will vest at a rate of no more than 3,334 shares per annual period per individual, and any unvested shares of Stock that are outstanding at the date the individual is no longer a director are forfeited. Shares may be issued and options may be granted under the 2005 Plan only to non-management directors of the Company or its subsidiaries. The 2005 Plan was administered by the Compensation Committee of the Board.

The 2005 Plan terminated ten years after the date of its adoption, which was March 17, 2015. During 2014, two 5-year options, to purchase 10,000 shares each, were awarded and as of December 31, 2014, four 10,000 five-year options remain outstanding. As of December 31, 2014, 139,250 shares of common stock, 53,250 of which are designated to underlie options to purchase shares, remain available for issuance under the 2005 Plan.

2007 Plan

During 2007, we adopted the 2007 Equity Incentive Plan, which replaced the 2003 Plan. The plan was amended and restated as of August 31, 2010 to make non-material changes to assure compliance with Section 409A of the Code and to increase the non-management director annual grant limit to 30,000 shares of common stock from 20,000 shares. The 2007 Plan was amended pursuant to Amendment No. 1 to the plan, approved by the Board on January 25, 2011, re-approved by the Board on February 24, 2012 and approved by our stockholders on July 19, 2012, to increase the amount of authorized and issuable shares as well as the limits of shares that may be granted to individuals and directors. The 2007 Plan was amended pursuant to Amendment No. 2 to the plan, approved by our Compensation Committee on February 12, 2014, to make non-material changes to the 2007 Plan to specifically allow for cash awards, such as under the Short Term Incentive Plan, and establish certain procedures for such cash awards. Amendment No. 3 to the 2007 Plan was approved by the Compensation Committee on February 12, 2014 and the Board on February 13, 2014 and is pending stockholder approval. Amendment No. 3 amends the 2007 Plan to add performance criteria, which is required to qualify awards under the 2007 Plan as Performance-Based Compensation under Section 162(m) of the IRC. The 2007 Plan initially authorized the issuance to employees, directors and consultants of up to 2,600,000 shares of common stock, subject to automatic increases pursuant to the 2007 Plan’s evergreen provision, either as restricted stock, grants to underlie options to purchase shares of our common stock or other benefits under the plan (with a maximum number of shares of 3,600,000 authorized). Under the 2007 Plan, the award of stock is currently limited to not more than 100,000 shares per individual per year with a maximum of 50,000 shares grantable in any year to non-management Directors. Amendment No. 4 to the 2007 Plan, which was approved by the Board on June 5, 2015 and is pending stockholder approval, proposed to increase the limit per individual per year to 400,000 shares (the limit for non-management directors will remain at 50,000 shares). We expect to seek approval of Amendment Nos. 3 and 4 by our stockholders at our Annual Meeting of Stockholders to be held in 2016. In general, all options granted under the 2007 Plan will expire ten years from the date of grant unless otherwise specified by the Board. The exercise price for options granted under the 2007 Plan will be the market price on the date of grant, and the shares of common stock underlying the option, RSA's, PSU's and SAR's will vest on the passage of specified times following the date of grant, the occurrence of one of more events, the satisfaction of performance criteria or other conditions specified by the Board. The 2007 Plan is administered by the Compensation Committee. During 2014, 10,000 Stock Options, 81,891 RSA's and 57,547 PSU's were granted. As of December 31, 2014, 1,123,020 shares have been reserved but not yet issued under the 2007 Plan.

401(k) Plan

Our 401(k) Plan allows the Company to issue shares of common stock to employees to satisfy its obligation to match employee contributions under the terms of the 401(k) Plan in lieu of matching contributions in cash. The Company reserved 600,000 shares of its common stock for this purpose. The value of common stock issued as matching contributions under the 401(k) Plan is determined based on the per share market value of our common stock on the date of issuance. During 2014, 5,250 shares were issued to satisfy the Company's obligation to match employee contributions. As of December 31, 2014, 229,618 shares of common stock are available for issuance under the 401(k) Plan.

2010 Non-Management Compensation and Incentive Plan

During 2010, our Board adopted the 2010 Non-Management Compensation and Incentive Plan (the "2010 Plan"), which authorized the issuance of shares of common stock, restricted stock or other rights or benefits under the plan to non-management employees and consultants. Our Board re-adopted the Plan in February 2012, and our stockholders approved the plan at the 2012 Annual Meeting. The purposes of the 2010 Plan are to attract and retain the best available personnel, to provide additional incentives to non-management employees and consultants and to promote the success of the Company's business. The number of shares authorized for issuance under the 2010 Plan is limited to 600,000.

The 2010 Plan will terminate ten years after the date of its adoption, if not earlier terminated by the Board. It may be amended, modified or terminated at any time if and when it is advisable in the absolute discretion of the Board, although certain

amendments are subject to approval of regulatory bodies and our stockholders. The 2010 Plan is administered by the Compensation Committee. During 2014, 30,752 RSA's were granted from the 2010 Plan. As of December 31, 2014, 565,452 shares of common stock are available for issuance under the 2010 Plan.

Grants of Plan-Based Awards Table

The following table presents information regarding grants of plan-based awards to our named executive officers during the fiscal year ended December 31, 2014. The share amounts reflect the 2:1 stock split of the Company's Common Stock on March 14, 2014. Our Compensation Committee established metrics for our 2014 STIP on November 11, 2013. Our Compensation Committee approved grants of RSA's and PSU's to our NEOs on January 2, 2014.