Advanced Emissions Solutions, Inc.
Form 10-K
April 19, 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, 2015
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. x Yes ¨ 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 April 14, 2016 was 22,011,494.

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

Class	April 14, 2016
Common Stock, $0.001 value	22,011,494

Documents Incorporated By Reference

None

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ADVANCED EMISSIONS SOLUTIONS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015

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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 20 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, 2015, the terms the “Company”, “we”, “us” and “our” means ADA and its consolidated subsidiaries for the periods through and including the period ended June 30, 2013 and ADES and its consolidated subsidiaries for the dates or periods after July 1, 2013. As of December 31, 2015 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”)
- ADA Analytics, LLC
- ADA Analytics Israel Ltd. (collectively with ADA Analytics, LLC, "ADA Analytics")

None of ACES, ADEquity, ADA IP or ADA-RCM6 had operations prior to 2014. ADA LLC ceased operations in 2012 and ADA IP has had no operations.

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 8 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. As of December 31, 2015, we held equity interests of 42.50%, 50.00%, and 24.95% in CCS, CCSS, and RCM6, respectively. During March 2016, the Company sold its entire equity interest in RCM6. For the year ended December 31, 2015, CCS and RCM6 met the

significant subsidiary test provided in Regulations S-X Rule 1-02 (w) and their financial statements are included in Item 15 in this Form 10-K filing. CCSS did not meet the significant subsidiary test provided in Regulations S-X Rule 1-02 (w) in that the Company's equity earnings for the year ended December 31, 2015 or the year ended December 31, 2013 did not exceed 20% of the Company's consolidated income from continuing operations before income taxes. However, CCSS did meet the significant subsidiary test for the year ended December 31, 2014 and therefore additional information related to CCSS pursuant to Regulation S-X Rule 3-09 is included within Item 15 of this Form 10-K.

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

During the year ended December 31, 2015, the Company had 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 were 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 ten 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, 2015 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").
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").

• 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.
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") ("IRC Section 45"), 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 where by the tax benefits may be realized by the owners of CCS. As of December 31, 2015, 14 RC facilities were producing RC at utility sites with 12 invested and two retained. During the fourth quarter of 2015, CCS ceased full-time operation of three retained facilities while it awaits final commitments for the purchase or lease of such facilities by tax equity investors. The remaining 14 RC facilities, although placed in service, were either installed but not operating, awaiting site selection or in various other stages of contract negotiation, permanent installation or beginning full-time operations. 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 14 RC facilities, eight have been permanently installed, including the three RC facilities for which operations were suspended during the fourth quarter of 2015, 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 RC facilities are expected to produce RC in 2016. One of the invested facilities is owned by RCM6, of which the Company owned 24.95% at December 31, 2015 but sold during the first quarter of 2016. Additionally, in March 2016, CCS entered into an agreement to lease one of its remaining RC facilities to a third-party.

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, 2015 and 2014, respectively, the tax credits received under IRC Section 45 were $6.71 and $6.60 per ton of coal produced. The value of the IRC Section 45 tax credits are adjusted annually based on inflation adjustment factors published in the Federal Register. As of December 31, 2015, 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 Net Operating Losses ("NOL"). See Note 16 to our Consolidated Financial Statements for additional information regarding our deferred taxes.
The 14 RC facilities producing RC as of December 31, 2015 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 the petition was denied on March 3, 2016, and MATS remains in effect.

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

In January 2013, the EPA issued the final 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
Historically, the Company was organized into 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"). During the fourth quarter of 2015, the Company

reorganized its operations into two reportable segments. As a result, the EC - ETS, EC - Manufacturing and R&D segments were combined to form a new Emissions Control segment ("EC"). As of December 31, 2015, the Company's operations consist of two reportable segments: (1) RC and (2) EC.

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 17 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. As of December 31, 2015, we held equity interests of 42.5%, 50%, and 24.95% in CCS, CCSS, and RCM6, respectively. In March 2016, we sold our entire interest in RCM6.

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 IRC Section 45 ("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 IRC 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 IRC Section 45 PTC is adjusted annually based on inflation adjustment factors published in the Federal Register. As of December 31, 2015, the tax credit received under IRC Section 45 was $6.71 per ton of coal produced.

Those RC facilities that CCS has leased or sold to tax equity investors are referred to as invested facilities. 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. 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 owned a single RC facility managed by an affiliate of CCS, of which the Company owned 24.95% as of December 31, 2015. In March, 2016, the Company sold its entire interest in RCM6.

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 Segment

(a) Systems & Equipment- Activated Carbon Injection, Dry Sorbent Injection System 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 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 was strong 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™ in-duct technology and ProRak™ mercury process analyzers.

Through December 31, 2015, the Company supplied DSI systems for the electric utility industry through its subsidiary BCSI. Upon the closure of its fabrication facility in McKeesport, PA, the Company began focusing its efforts within the DSI market on engineering and related services and plans to sell DSI systems that are manufactured through third parties, similar to our current structure within the ACI marketplace. 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.

Demand for these systems continued in 2015 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.

(b) Consulting Services

We also offer consulting services to assist electric power generators, the electric utility industry 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 and 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 IRC 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®.

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.

Patents

As of December 31, 2015, we held 36 United States (U.S.) patents that were issued or allowed, 17 additional U.S. Provisionals or applications that were pending, and 13 international patent applications that were either 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 14, 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 Goldman Sachs ("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 18 of the Consolidated Financial Statements within Item 8 of this Form 10-K.

Research and Development Activities

In 2015 we conducted 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, 2015, 2014 and 2013 was $5.4 million, $1.5 million and $3.2 million, respectively. Prior to cost share reimbursements, we incurred expenses of $6.7 million, $3.6 million and $13.1 million on our own behalf on research and development activities related to further development of our technologies during 2015, 2014 and 2013, 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. However, we expect that future research and development activities will decrease as the Company aligns the business with strategic objectives.

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, 2015 and RC tons produced for the year ended December 31, 2015:

			Operating	
	# of RC Facilities	Not Operating	Invested	Retained
RC Facilities	28	14	12	2
RC tons produced (000's)			37,744	11,744

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
Backlog as of December 31, 2014	$144,099
New contracts	6,527
Change order and claims to existing contracts, net	2,102
Revenues recognized	(60,086)
Backlog as of December 31, 2015	$92,642

Employees

As of December 31, 2015 we employed 69 full-time and part-time personnel, including six ADES executives; 64 people were employed at our offices in Colorado and one was employed in each of Georgia, Illinois, Massachusetts, Ohio and Pennsylvania, respectively.

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

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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 similar expressions are used i 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 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) our ability to satisfy warranty and performance guarantee provisions;
(g) expected dissolution and winding down of certain of our wholly-owned subsidiaries;
(h) future level of research and development activities;
(i) the effectiveness of our technologies and the benefits they provide;
(j) 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;
(k) probability of any loss occurring with respect to CCS Party Guarantees;
(l) the timing of awards of, and work and related testing under, our contracts and agreements and their value;
(m) 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;
(n) ability to refinance the loan under the Credit Agreement or obtain alternative financing;
(o) the outcome of current and pending legal proceedings;
(p) awards of patents designed to protect our proprietary technologies both in the U.S. and abroad;
(q) 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
(r) 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 IRC 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 IRC 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 IRC Section 45 tax credits potentially available from RC facilities over the anticipated term of the IRC 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, 2015, the unrecovered investment balance, inclusive of the 15% annual return was $30.4 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 IRC 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 IRC 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 IRC 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 IRC Section 45 tax credits. Finally, for four years after an RC facility is placed in service it is eligible to generate IRC 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 has been 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. Significant components 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. Certain GS related entities renewed their leases in the first quarter of 2016 with some of them including renegotiated less favorable terms.

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. Several large U.S.-based banks have publicly indicated they will no longer finance new coal-fired power plants in the U.S. and at least five large coal companies have recently filed bankruptcy. 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 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, we provided certain customers with 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 and may also require us to delay revenue recognition on such contracts. 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 IRC Section 45 tax credits or the ability of taxpayers to benefit from tax credits or 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 JULY 8, 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 July 8, 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%. Events of default include if the Company fails to file all periodic reports with the SEC by April 20, 2016 and if CCS fails to lease or sell two new refined coal facilities by June 30, 2016. Despite the Company's best efforts, CCS' ability to lease or sell refined coal facilities is 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 entitled 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.

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, THE MATERIAL WEAKNESSES IDENTIFIED PURSUANT TO SUCH EVALUATIONS AND THE REMEDIATION OF SUCH MATERIAL WEAKNESSES.

We are required to comply with Section 404 of the Sarbanes-Oxley Act of 2002.

On February 29, 2016 the Company filed its Annual Report on Form 10-K for the fiscal year ended December 31, 2014 (the "2014 Form 10-K") which included the restatement of 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 (collectively, the "Restatement"). Management determined that the issues leading to the restatements arose because of material weaknesses in the Company’s internal control over financial reporting discussed in further detail in Item 9A to this Form 10-K. 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, identify further material weaknesses, if any, or remediate current material weaknesses 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.

INVESTIGATION AND LEGAL AND EXPERT SERVICES REGARDING THE 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 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 and remediation efforts. 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, the Restatement of our financial results for the years ended December 31, 2011 to 2012 and the first three quarters of 2013, and the untimely filing of our Annual and Quarterly Reports on Form 10-K and Forms 10-Q for the fiscal year ended December 31, 2015, current and prospective investors will be unable to review certain financial and informational disclosures that would have been contained in the full periodic reports and did not receive information in a timely fashion. Such reporting deficiencies may be considered by the SEC when assessing the Company’s compliance with federal securities laws as part of the SEC Inquiry, described under Item 3 of this Form 10-K. We continue to cooperate with the SEC and have incurred significant legal and accounting expenditures in connection with our internal investigation efforts and response to the SEC Inquiry.

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

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or 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 expired on February 1, 2016, as discussed in Note 12 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, 2015, we leased office, warehouse and laboratory space in Highlands Ranch, Colorado for a total of approximately 258,719 square feet under five 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 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.

The three preceding leases are collectively referred to as the McKeesport Leases.

Subsequent to December 31, 2015, the Company entered into an agreement to terminate and settle the remaining amounts owed under and all liabilities related to the McKeesport Leases. The Company will pay a total of $0.5 million, one-half of which is due in the second quarter of each of 2016 and 2017.

See Note 14 to our 2015 Consolidated Financial Statements in Item 8 of this Form 10-K for information with respect to our lease commitments as of December 31, 2015.

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. On March 7, 2016 the parties filed a stipulated motion to stay the case while the parties mediate the matter. On March 8, 2016, the motion to stay was granted, and the Defendants’ motion to dismiss was denied without prejudice with the option to refile should mediation fail. The case is stayed until further order of the court.

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 the Annual Report on Form 10-K for the fiscal year ended December 31, 2014. 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, 2015, our common stock was quoted on the OTC Pink® Marketplace - Limited Information Tier ("OTC") market under the symbol "ADES". The table below sets forth the price range of our common stock for each quarter of 2015 and 2014:

	2015		2014	
	High	Low	High	Low
1st Quarter	$21.86	$9.40	$27.90	$22.53
2nd Quarter	$17.00	$12.20	$25.89	$18.10
3rd Quarter	$13.00	$6.30	$23.90	$19.33
4th Quarter	$7.14	$3.70	$23.03	$19.24

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.

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.

Performance Graph

The following graph and table depict the total return to stockholders for the period beginning on December 31, 2010 and ending on December 31, 2015 relative to the performance of the Russell 3000 Index and a select industry peer group. The graph and table assume $100 invested and that all dividends were reinvested.

The performance graph and table are not intended to be indicative of future performance. The performance graph and table shall not be deemed “soliciting material” or to be “filed” with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of the Company’s filings under the Securities Act of 1933, as amended, or the Exchange Act.

The select industry peer group includes the following: American Vanguard Corp., Calgon Carbon Corporation, CECO Environmental Corp., Clean Energy Fuels Corp., EnerNOC, Inc., FutureFuel Corp., Fuel-Tech, Inc., PMFG, Inc., Hawkins Inc., Headwaters Incorporated, KMG Chemicals Inc., Lydall Inc., Flotek Industries, Inc., and Rentech, Inc.

Holders

The number of record holders of our common stock as of April 6, 2016 was approximately 1,051. The approximate number of beneficial stockholders is estimated at 2,246.

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 12 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 years ended December 31, 2014 and 2015.

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, 2015, 2014, 2013 and 2012 and from the unaudited consolidated financial statements of the Company for the year ended December 31, 2011 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 8 Financial Statements and Supplementary Data of this Form 10-K.

	Years Ended December 31,				
(in thousands)	2015	2014	2013	2012	2011
Statement of operations data:	(3) (5)	(3)	(3)	(4)	(unaudited) (5)
Revenues	$62,739	$16,923	$13,286	$16,316	$ 21,764
Earnings (loss) from equity method investments	8,921	42,712	15,502	813	28,795
Royalties, related party	10,642	6,410	2,505	1,446	—
Net income (loss)	(30,141)	1,387	(15,987)	(13,129)	(30,811)
Earnings (loss), per common share, basic (1) (2)	(1.37)	0.06	(0.78)	(0.65)	(1.91)
Earnings (loss), per common share, diluted	(1.37)	0.06	(0.78)	(0.65)	(1.91)
Dividends declared per common share	—	—	—	—	—

	As of December 31,				
(in thousands)	2015	2014	2013	2012	2011
Balance sheet data:	(3) (5)	(3)	(3)	(4)	(unaudited) (5)
Total assets	$60,775	$93,699	$73,524	$28,885	$ 42,609
Total debt	28,025	15,910	—	—	—
Stockholders’ deficit	(24,978)	(697)	(6,167)	(21,456)	(9,384)

(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.
(2) 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, 2015, 2013, 2012 and 2011.
(3) 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 Company's Annual Report on Form 10-K for the year ended December 31, 2014. The fabrication facility related to this acquisition was shut down during the fourth quarter of 2015 as described in Note 2 of the Consolidated Financial Statements within this Form 10-K.

(4) As described in Item 7 and Note 14 of the Company's Annual Report on Form 10-K for the year ended December 31, 2014, 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, the Company recognized equity method losses, from the equity method investment discussed above of $8.8 million. This investment was relinquished in 2011 and thus had no impact to the years ended subsequent to December 31, 2011.
(5) As described in Note 7 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 IRC 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, 2015, the Company recognized equity method losses related to RCM6 of $4.6 million. On March 3, 2016, the Company sold its 24.95% membership interest in RCM6 for a cash payment of $1.8 million and assumption of the outstanding note payable made by the Company in connection with its purchase of RCM6 membership interests from CCS in February 2014.

The Notes to the Consolidated Financial Statements contain additional information about charges resulting from other operating expenses and other income (expense) which affects the comparability of information presented.

QUARTERLY FINANCIAL DATA – UNAUDITED

(in thousands, except per share data)	For the Quarter Ended			
	December 31, 2015	September 30, 2015	June 30, 2015	March 31, 2015
Revenues	$13,202	$ 12,885	$14,895	$21,757
Cost of revenues, exclusive of operating expenses shown below	7,224	10,610	14,003	15,715
Other operating expenses	13,113	12,264	18,670	12,940
Operating loss	(7,135)	(9,989)	(17,778)	(6,898)
Earnings (loss) from equity method investments	3,788	(41)	4,860	314
Royalties, related party	2,876	3,273	2,299	2,194
Other income (expenses), net	(2,568)	(1,853)	(1,765)	(1,698)
Income (loss) before income tax expense	(3,039)	(8,610)	(12,384)	(6,088)
Income tax expense	(131)	44	63	44
Net income (loss)	$(2,908)	$ (8,654)	$(12,447)	$(6,132)
Earnings (loss) per common share – basic	$(0.13)	$ (0.40)	$(0.57)	$(0.28)
Earnings (loss) per common share – diluted	$(0.13)	$ (0.40)	$(0.57)	$(0.28)
Weighted-average number of common shares outstanding (1)				
Basic	21,676	21,687	21,715	21,696
Diluted	21,676	21,687	21,715	21,696

(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.

(in thousands, except per share data)	For the Quarter Ended 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 income (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.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.
Overview
This Form 10-K for the year ended December 31, 2015 is filed by Advanced Emissions Solutions, Inc. together with its consolidated subsidiaries (collectively, "ADES", the "Company", "we", "us", or "our" unless the context indicates otherwis
Pursuant to an Agreement and Plan of Merger, Advanced Emissions Solutions, Inc., a Delaware company incorporated in 2011, replaced ADA-ES, Inc. ("ADA") as the publicly-held corporation effective July 1, 2013. Therefore, the terms "we", "us" and "our" means ADA and its consolidated subsidiaries unless the context indicates otherwise, for the periods through and including the period ended June 30, 2013. For further information on the reorganization, see Note 20 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 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 17 of our Consolidated Financial Statements. Because of changes we have made in our business since the end of 2015, the information relating to our business and related matters includes certain information for periods after December 31, 2015.
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 retained RC facility, the Company's equity method earnings will be negatively impacted as operating retained 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, 2015, 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 owned 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 was subject to funding its share of operating losses during 2014 and 2015. 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. The Company sold its entire ownership interest in RCM6 in the first quarter of 2016.

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.

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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, 2015 vs. Year ended December 31, 2014

Our consolidated results comprised the following:

	Years Ended December 31,		Change	
(in thousands, except per share data)	2015	2014	($)	(%)
Revenues:				
Equipment sales	$60,099	$12,044	$48,055	399 %
Consulting services	1,752	4,488	(2,736)	(61)%
Chemicals and other	888	391	497	127 %
Total revenues	62,739	16,923	45,816	271 %
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	45,433	9,277	36,156	390 %
Consulting services cost of revenue, exclusive of depreciation and amortization	1,518	2,203	(685)	(31)%
Chemical and other cost of revenue, exclusive of depreciation and amortization	601	140	461	329 %
Payroll and benefits	23,589	20,767	2,822	14 %
Rent and occupancy	3,309	2,468	841	34 %
Legal and professional fees	16,604	14,430	2,174	15 %
General and administrative	6,104	6,066	38	1 %
Research and development, net	5,362	1,521	3,841	253 %
Depreciation and amortization	2,019	1,865	154	8 %
Total operating expenses	104,539	58,737	45,802	78 %
Operating loss	(41,800)	(41,814)	14	— %
Other income (expense):				
Earnings from equity method investments	8,921	42,712	(33,791)	(79)%
Royalties, related party	10,642	6,410	4,232	66 %
Interest income	24	74	(50)	(68)%
Interest expense	(8,402)	(5,725)	(2,677)	47 %
Other	494	26	468	1,800 %
Total other income (expense), net	11,679	43,497	(31,818)	(73)%
Income (loss) before income tax expense	(30,121)	1,683	(31,804)	(1,890)%
Income tax expense	20	296	(276)	(93)%
Net income (loss)	$(30,141)	$1,387	$(31,528)	(2,273)%
Earnings (loss) per common share:				
Basic	$(1.37)	$0.06	$(1.43)	(2,383)%
Diluted	$(1.37)	$0.06	$(1.43)	(2,383)%
Weighted-average number of common shares outstanding:				
Basic	21,773	21,554		
Diluted	21,773	22,079		

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Total Revenue and Cost of Revenue

A summary of the components of our revenue and costs of revenue for the years ended December 31, 2015 and 2014 is as follows:

	Years Ended December 31,		Change	
(Amounts in thousands except percentages)	2015	2014	($)	(%)
Revenues:				
Equipment sales	$60,099	$12,044	$48,055	399 %
Consulting services	1,752	4,488	(2,736)	(61)%
Chemicals and other	888	391	497	127 %
Total revenues	62,739	16,923	45,816	271 %
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	45,433	9,277	36,156	390 %
Consulting services cost of revenue, exclusive of depreciation and amortization	1,518	2,203	(685)	(31)%
Chemical and other cost of revenue, exclusive of depreciation and amortization	601	140	461	329 %

Equipment sales and Equipment sales cost of revenue

During the years ended December 31, 2015 and 2014, we entered into four and 25 long term (6 months or longer) fixed price contracts to supply ACI systems with aggregate contract values including change orders of $5.5 million and $35.8 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, 2015 and 2014, we completed 32 and 15 ACI systems, recognizing revenues of $51.7 million and $11.1 million and costs of revenue of $38.4 million and $8.1 million, respectively. We recognized $0.1 million and zero in loss provisions related to contracts in 2015 and 2014 related to ACI systems.

During the years ended December 31, 2015 and 2014, we entered into one and 13 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 $2.4 million and $10.9 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, 2015 and 2014, we completed seven and two DSI systems and two and five other material handling equipment systems, recognizing revenues of $7.2 million and $0.6 million and costs of revenue of $5.9 million and $0.8 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 $0.2 million and $0.3 million in loss provisions related to contracts recognized in 2015 and 2014, respectively, related to DSI system contracts.

The remaining changes were due to other equipment sales.

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, which 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 during 2013, 2014, and 2015 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 the timing of revenue being recognized, which is based on substantial completion of the contracts. 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 may 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, 2015 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 smaller scale consulting contracts with new customers in 2015 and 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, 2015 and 2014, 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 average contract revenue. The increase in revenue is also due to the Company's increased focus on selling these products to coal-fired power plants to be in compliance with applicable regulations. We believe revenues will continue to increase in 2016 with continued focus on this market and providing chemical solutions to potential new customers.

Additional information related to revenue concentrations and contributions by class and reportable segment can be found within the segment discussion below and in Note 18 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, 2015 and 2014 is as follows:

	Years Ended December 31,		Change	
(in thousands, except percentages)	2015	2014	($)	(%)
Operating expenses:				
Payroll and benefits	$23,589	$20,767	$2,822	14 %
Rent and occupancy	3,309	2,468	841	34 %
Legal and professional fees	16,604	14,430	2,174	15 %
General and administrative	6,104	6,066	38	1 %
Research and development, net	5,362	1,521	3,841	253 %
Depreciation and amortization	2,019	1,865	154	8 %
	$56,987	$47,117	$9,870	21 %

Payroll and benefits

Payroll and benefits expenses increased in 2015 compared to 2014 due to an increase in restructuring expenses, including the modification and acceleration of equity awards during 2015 in connection with the departure of certain executive officers and management's alignment of the business with strategic objectives. Restructuring expenses recorded during 2015 were $8.5 million compared to $3.5 million in 2014, of which $3.4 million was due to the accelerated vesting of modified equity-based compensation awards for certain terminated employees. Incentive compensation in 2015 compared to 2014 also increased by $0.6 million due to bonuses awarded during the year. These increases are offset by a decrease in overall and executive head count by approximately 30% related to the reduction in force and management's realignment of the business. We expect to record additional charges in 2016 associated with these events. Additionally, as discussed in Note 22 to the Company's Consolidated Financial Statements, the Company undertook an additional reduction in force in the second quarter of 2016.

Rent and occupancy

Rent and occupancy expenses increased in 2015 compared to 2014 primarily due to $0.8 million in lease termination costs incurred in 2015 associated with the facility closure located in McKeesport, PA and an increase in insurance expense. These increases were partially offset by the Company terminating a lease relating to warehouse space in the third quarter of 2015 resulting in a $0.1 million reduction of expense. Subsequent to December 31, 2015, and in

connection with the aforementioned realignment of the Company's operations, the Company entered into an agreement to terminate various lease agreements covering approximately 207 thousand square feet of manufacturing, warehouse and office space located in Pennsylvania. As consideration for terminating the leases, the Company agreed to pay the lessor termination fees of $0.3 million in April 2016 and the same amount in April 2017. As a result, future minimum commitments under leases and annual rent expense will be reduced by approximately $0.4 million and $0.2 million for the years ended December 31, 2016 and 2017, respectively.

Legal and professional fees

Legal and professional fees expenses increased by $2.2 million in 2015 compared to 2014 as a result of the significant professional resources deployed to address the Restatement of our consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, including the ongoing SEC Inquiry, which individually increased expenses by $3.3 million, resulting in total 2015 Restatement expenses of $9.5 million. Other increases related to legal fees of $0.8 million, and consulting fees of approximately $2.7 million most significantly related to strategic advisory services and information technology services. These increases were offset by $3.7 million decrease in professional fees for a residual payment agreement with a former consultant who was involved in the development and deployment of RC technologies and expenses 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 decrease of $0.9 million was due to decreases in various professional fees during 2015 compared to 2014. During 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 2015 compared to 2014 primarily due to modest increases in general operating expenses. We expect the general and administrative expenses in 2016 to remain consistent with expenses in 2015.

Research and development, net

Research and development expense increased in 2015 compared to 2014 mostly due to our investment in ADA Analytics. We recorded gross R&D expenses of $6.7 million and $3.6 million in 2015 and 2014, respectively, offset by reimbursements received from the DOE and industry cost share partners of $1.4 million and $2.0 million, respectively. We incurred expenses related to our investment in ADA Analytics of $2.6 million, of which $1.9 million related to the impairment charge we recognized in the third quarter of 2015. Additionally, we incurred $1.2 million related to a liquefied natural gas project that the Company was helping fund during 2015, which has subsequently been terminated. Due to changes related to management's alignment of the business with strategic objectives during 2015, we plan to cease on non-essential research and development activities and expect that future research and development expenses will be significantly less that historical expenses.

Depreciation and amortization

Depreciation and amortization expense increased in 2015 compared to 2014 due to amortization of the Highview technology license and asset additions.

Other Income (Expense), net

A summary of the components of our other income (expenses), net for the years ended December 31, 2015 and 2014 is as follows:

	Years Ended December 31,		Change	
(Amounts in thousands, except percentages)	2015	2014	($)	(%)
Other income (expense):				
Earnings from equity method investments	$8,921	$42,712	$(33,791)	(79)%
Royalties, related party	10,642	6,410	4,232	66%
Interest income	24	74	(50)	(68)%
Interest expense	(8,402)	(5,725)	(2,677)	47%
Other	494	26	468	1,800%
Total other income (expense), net	$11,679	$43,497	$(31,818)	(73)%

Earnings in equity method investments

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

	Year ended December 31,		Change	
(in thousands)	2015	2014	($)	(%)
Earnings from CCS	$ 8,651	$ 43,584	$ (34,933)	(80)%
Earnings from CCSS	4,838	3,625	1,213	33 %
Loss from RCM6	(4,568)	(4,497)	(71)	2 %
Earnings from equity method investments	$ 8,921	$ 42,712	$ (33,791)	(79)%

Earnings from equity method investments decreased in 2015 compared to 2014 primarily due to decreases in cash distributions 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, 2015 and 2014, were 12 and 12, 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. However, the number of retained RC facilities that were generating PTCs and other tax benefits as of December 31, 2015 and 2014, were two and five, respectively. During the fourth quarter of 2015, CCS suspended full-time operation of three retained facilities while it awaits final commitments for the purchase or lease of such facilities by tax equity investors.

We recognized $8.7 million and $43.6 million of equity income from CCS for the years ended December 2015 and 2014, compared to our proportionate share of CCS' net income of $35.3 million and $26.6 million, respectively. The difference between our pro-rata share of CCS's net income (loss) and our earnings from our CCS equity method investment as reported on our Consolidated Statements of Operations relates to the Company receiving cumulative distributions in excess of our share of cumulative CCS earnings, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. As was the case in 2015, when CCS subsequently reports net income, we will only recognize income to the extent of cash distributions, until such time as the cumulative amount of earnings equals the cumulative amount of distributions; thereafter, we will recognize our proportionate share of net income (loss). The following table presents 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, 2015 and 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
Total investment balance, equity earnings (loss) and cash distributions	12/31/2013	$ —	$ 13,813	$ 13,813	$ (12,906)
ADES proportionate share of income from CCS (1)	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 (loss) and cash distributions	12/31/2014	—	43,584	43,584	(29,877)
ADES proportionate share of income from CCS (1)	2015 activity	35,265	35,265	—	—
Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2015 activity	(29,877)	(29,877)	—	29,877
Current year cash distributions from CCS	2015 activity	(8,651)	—	8,651	—
Adjustment for current year cash distributions in excess of investment balance	2015 activity	3,263	3,263	—	(3,263)
Total investment balance, equity earnings and cash distributions	12/31/2015	$ —	$ 8,651	$ 8,651	$ (3,263)

(1) The amounts of the Company's 42.5% proportionate share of net income as shown in the table above differ from mathematical calculations of the Company’s 42.5% equity interest in CCS multiplied by the amounts of Net Income available

to Class A members as shown in the table above of CCS results of operations due to adjustments related to the Redeemable Class B preferred return and the elimination of CCS earnings attributable to RCM6, of which the Company owned 24.95% during the years ended December 31, 2015 and 2014.

CCS distributed $8.7 million in cash during 2015 that we recognized as equity method earnings, compared to distributions and earnings of $43.6 million during 2014. As of December 31, 2015, our cumulative distributions exceed our proportionate share of cumulative CCS earnings by approximately $3.3 million. As such, we will continue to recognize future distributions received from CCS as equity method earnings until such a time as cumulative earnings equal or exceed cumulative distributions. Thereafter, we will recognize our proportionate share of CCS' earnings (losses) in each period, so long as distributions received in such period do not exceed our proportionate share of CCS' earnings (losses) for the period. We expect an increase in equity method earnings in 2016 due to expected increases in cash distributions from CCS.

While CCS recognized $87.3 million in earnings allocable to Class A shareholders during 2015, of which our proportionate share totaled approximately $35.3 million, CCS's distributions were severely limited and restricted primarily by capital expenditures, changes in working capital items, and other requirements for cash to be retained within the business. The CCS consolidated financial statements as of December 31, 2015 and 2014, and for the years ended December 31, 2015, 2014 and 2013, are included within Item 15 of this Form 10-K. As compared to distributions received in 2014, CCS distributions in 2015 were also limited by a reduction in the number of closings of sales or leases of qualified facilities to new tax equity investors, which closing generally include upfront purchase price payments that have historically been immediately distributed to the equity owners of CCS, including us. A substantial portion of the 2014 distributions received from CCS were due to such upfront purchases price or lease payments that were received by CCS as a result of closings of sales or leases of qualified facilities to new tax equity investors.

Equity earnings from our interest in CCSS increased by $1.2 million in 2015 as compared to 2014, primarily due to an increase in the number of RC facilities being operated by CCSS throughout the year. 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, 2015 and 2014, CCSS had operating and maintenance agreements with 14 and 17 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. On March 3, 2016, the Company sold its entire ownership interest in RCM6. The Company received a cash payment of $1.8 million related to the sale and has no future obligations related to previously recorded notes payable. However, the Company will still be positively impacted by the RCM6 RC facility in that it will receive it pro-rata share of future income and cash distributions through its ownership in CCS. The future income and cash distribution will be generated from the RCM6 RC facility lease payments made to CCS.

Although all of our deferred tax assets have a full valuation allowance recorded against them as of December 31, 2015 and 2014, 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)	2015	2014
IRC Section 45 tax credits earned	$38,998	$25,817

As discussed in Item 1, CCS operates and leases or sells facilities used in the production of RC to third party tax equity investors. 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 December 31, 2015, ADA's allocable share of the gross deferred installment gain from CCS to be recognized in future years is approximately $336 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 December 31, 2015, we had approximately $97 million in GBC carryforward and $59 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, 2015. Such analysis for the period from January 1, 2016 through the date of this filing has not been completed. Therefore, it is possible that we experienced an ownership change between January 1, 2016 and the date of this filing, 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 our approximately $336 million 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 $336 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 $336 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.

Additional information related to equity method investments can be found in Note 7 to the Company's Consolidated Financial Statements.

Royalties, related party

As of December 31, 2015 and 2014, RC was produced at seven and six RC facilities, respectively, using M-45™ and M-45-PC™ technologies, which CCS licenses from us. This includes the impact of CCS ceasing full-time operation of three retained facilities during the fourth quarter of 2015 while it awaits final commitments for the purchase or lease of such facilities by tax equity investors. During the years ended December 31, 2015 and 2014, there was 22.0 million tons and 12.4 million tons of RC produced at those facilities, respectively, which resulted in a 66% increase in our income from Royalties, related party. Certain of the facilities that were operating in 2015 were retained facilities that were producing tax credits and other tax benefits directly for the benefit of CCS and its owners. Effective in the fourth quarter of 2015, some of these facilities were idled pending the sale or lease to tax equity investors. As a result, we anticipate that 2016 royalties will decline to approximately the level of 2014 until such time as tax equity investors

are secured and production from these facilities resumes.

Interest expense
Interest expense increased in 2015 compared to 2014 by $1.3 million due to the increase in RC facilities on which CCS recognized installment sales for tax purposes from 11 to 12 and an increase in the interest rate. 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 section 453A interest:

	As of December 31,	
(in thousands)	2015	2014
Tax liability deferred on installment sales (1)	$111,905	$120,129
Interest rate	4.00 %	3.00 %

(1) Represents the approximate tax effected liability related to the deferred gain on installment sales (approximately $336 million as of December 31, 2015).

Additionally, interest expense increased by $0.2 million and $1.2 million related to the note payable used to finance our purchase of RCM6 in February 2014 and the short-term loan entered into in the fourth quarter of 2015, respectively.

During the first quarter of 2016, the Company sold its entire ownership interest in RCM6 and has no future obligations related to previously recorded note payable.

Income tax expense

We did not recognize any federal income tax expense (benefit) during the years ended December 31, 2015 or 2014 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, 2015 and 2014 of zero and $0.3 million, respectively. See Note 16 in our Consolidated Financial Statements for additional information.

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 (expense):				
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

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	
(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 $0.3 million and $4.8 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.

Demand for ACI and DSI system contracts in 2013 and 2014 was 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 the timing of revenue being recognized, which is based on substantial completion of the contract.

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.

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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.

Additional information related to revenue concentrations and contributions by class and reportable segment can be found in Note 18 to the Company's 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, 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 %
Total operating expenses	$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.

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 8 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.

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 11, 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.

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 (expense), net for the years ended December 31, 2014 and 2013 is as follows:

	Years Ended December 31,		Change	
(in thousands, except percentages)	2014	2013	($)	(%)
Other income (expense):				
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 %

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)	2014	2013	($)	(%)
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%

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 31, 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 pro-rata share of CCS's net income (loss) and our earnings from our CCS equity method investment as reported on our Condensed Consolidated Statements of Operations relates to the Company receiving distributions in excess of the carrying value of the investment during prior periods, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. If CCS subsequently reports net income, the Company will not record its pro-rata share of such net income until its cumulative share of pro-rata net income equals the amount of its cumulative income recognized due to cash being distributed. Until such time, the Company will only report income from CCS to the extent of cash distributions. 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
Beginning balance	12/31/2012	$ —	$—	$ —	$ (8,003)
ADES proportionate share of income from CCS (1)	2013 activity	8,910	8,910	—	—
Increase of equity loss 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 proportionate share of income from CCS (1)	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 (loss) and cash distributions	12/31/2014	$ —	$43,584	$ 43,584	$ (29,877)

(1) The amounts of the Company's 42.5% proportionate share of net income as shown in the table above differ from mathematical calculations of the Company’s 42.5% equity interest in CCS multiplied by the amounts of Net Income available to Class A members as shown in the table above of CCS results of operations due to adjustments related to the Redeemable Class B preferred return and the elimination of CCS earnings attributable to RCM6, of which the Company owned 24.95% during the year ended December 31, 2014.

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.

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
IRC Section 45 tax credits earned	$25,817	$15,366

Additional information related to equity method investments can be found in Note 7 to our 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.

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 (1)	$120,129	$43,777
Interest rate	3.00 %	3.00 %

(1) Represents the approximate tax effected liability related to the deferred gain on installment sales.

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

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 16 in our Consolidated Financial Statements for additional information.

Business Segments

As discussed in Item 1 and Note 17 of the Consolidated Financial Statements, during the fourth quarter of 2015, the Company realigned is operating segments into two reportable segments: (1) Refined Coal ("RC"); and (2) Emissions Control ("EC"). Following the realignment, the Company retroactively adjusted all segment related disclosures included within the notes to the Consolidated Financial Statements as well as within this Item. 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 revenues include 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.
- 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 the burning of 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 - Our EC segment includes revenues and related expenses from the sale of ACI and DSI equipment systems, consulting services and chemical and other sales related to the reduction of emissions in the coal-fired electric generation process and the electric utility industry. The fabrication of ACI systems is largely dependent upon third party manufacturers. We historically have fabricated DSI systems through our subsidiary BCSI, however, we closed the fabrication facility during the fourth quarter of 2015 and future fabrication will occur through the use of third party manufacturers. These amounts are included within the respective revenue and cost of sales line items 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, 2015, 2014 and 2013:

	Years Ended December 31,			Change	
(in thousands)	2015	2014	2013	($)	($)
Revenues:					
Refined Coal:					
Earnings from equity method investments	$8,921	$42,712	$15,502	$(33,791)	$27,210
Consulting services	55	665	1,330	(610)	(665)
Royalties, related party	10,642	6,410	2,505	4,232	3,905
	19,618	49,787	19,337	(30,169)	30,450
Emissions Control:					
Equipment sales	60,099	12,044	5,747	48,055	6,297
Consulting services	1,697	3,823	5,460	(2,126)	(1,637)
Chemical and other	888	391	749	497	(358)
	62,684	16,258	11,956	46,426	4,302
Total segment reporting revenues	$82,302	$66,045	$31,293	$16,257	$34,752
Adjustments to reconcile to reported revenues:					
Refined Coal:					
Earnings from equity method investments	$(8,921)	$(42,712)	$(15,502)	33,791	(27,210)
Royalties, related party	(10,642)	(6,410)	(2,505)	(4,232)	(3,905)
	(19,563)	(49,122)	(18,007)	29,559	(31,115)
Total reported revenues	62,739	16,923	13,286	45,816	3,637
Segment reporting operating income (loss)					
Refined Coal	$12,131	$42,094	$16,227	$(29,963)	$25,867
Emissions Control	(7,583)	(13,348)	(14,494)	5,765	1,146
Total segment operating income (loss)	$4,548	$28,746	$1,733	$(24,198)	$27,013

A reconciliation of segment operating income (loss) to consolidated net income (loss) is included within Note 17 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)	2015	2014	2013
Earnings from CCS	$8,651	$43,584	$13,813
Earnings from CCSS	4,838	3,625	1,689
Loss from RCM6	(4,568)	(4,497)	—
Earnings from equity method investments	$8,921	$42,712	$15,502

We recognized $8.7 million, $43.6 million and $13.8 million of equity income from CCS for the years ended December 2015, 2014 and 2013, respectively, compared to our proportionate share of CCS' net income of $35.3 million, $26.6 million and $8.9 million, respectively. The difference between our pro-rata share of CCS's net income (loss) and our earnings from our CCS equity method investment as reported on our Consolidated Statements of Operations relates to the Company receiving cumulative distributions in excess of our share of cumulative CCS earnings, and therefore recognizing such excess distributions as equity method earnings in the period the distributions occur. When CCS subsequently reports net income, we will only recognize income to the extent of cash distributions, until such time as the cumulative amount of earnings equals the cumulative amount of distributions; thereafter, we will recognize our proportionate share of net income (loss).

Additional discussion of our equity method investments is included above within our consolidated results and in Note 7 of the Consolidated Financial Statements.

During the years ended December 31, 2015, 2014 and 2013, there was 22.0 million, 12.4 million and 5.1 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 2016 as a result of an increase in RC facilities using our technologies 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 2013 and 2014. The Company does not expect that consulting services related to the RC segment will be material in the future.

Segment operating income (loss) decreased during 2015 compared to 2014 due to the decrease in revenues, driven by the decrease in cash distributions from CCS and a $1.2 million increase in 453A interest, offset by an increase in CCSS earnings of $1.2 million and Royalties related to CCS's use of our M-45 License of $4.2 million, as discussed within our consolidated results of operations.

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.

EC

During the years ended December 31, 2015 and 2014, we completed 32 and 15 ACI systems, recognizing revenues of $51.7 million and $11.1 million and costs of revenue of $38.4 million and $8.1 million, respectively. We recognized $0.1 million and zero on loss provisions related to ACI system contracts in 2015 and 2014, respectively. We also completed seven and two DSI systems and two and five other material handling equipment systems, recognizing revenues of $7.2 million and $0.6 million and costs of revenue of $5.9 million and $0.8 million, respectively. Cost of sales were impacted year over year due to $0.3 million and $0.3 million in loss provisions related to contracts recognized in 2015 and 2014, respectively, related to DSI contracts. The increase in the completion of equipment contracts was a combination of the timing of entering into the contracts and the completion of such contracts.

During the years ended December 31, 2014 and 2013, we completed 15 and 2 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. 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 2014 or 2013. During the years ended December 31, 2014 and 2013, we also 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. The increase in 2013 was partially due to 2013 being the first full year of BCSI operations, which were acquired in the third quarter of 2012. Certain of the DSI long term fixed price contracts were expected to be completed with losses. As a result, cost of sales includes $0.3 million and $4.8 million in loss provisions in 2014 and 2013 respectively, related to DSI contracts.

Consulting service revenues decreased during 2015 compared to 2014 due to a decrease in average contract revenue, driven by smaller scale consulting contracts with new customers in 2015 and the Company's reduction in force of personnel providing consulting services.

Consulting service revenues decreased during 2014 compared to 2013 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.

During the years ended December 31, 2015 and 2014, the most significant component of Chemicals and other revenues and costs of revenues were chemical sales related to emissions control technologies. Revenues increased during 2015 compared to 2014 due to an increase in average contract revenue. The increase in revenue is also due to the Company's increased focus on selling these products to coal-fired power plants to be in compliance with applicable regulations.

During the years ended December 31, 2014 and 2013, Chemicals and other 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.

Segment operating loss decreased during 2015 compared to 2014, which was most significantly impacted by the increase in operating income related to the historical EC-ETS segment. This increase was offset by continued losses related to the historical EC-Manufacturing and R&D segments in excess of $6.6 million and $6.7 million, respectively. Losses within the EC segment included restructuring charges of $5.1 million, of which $1.9 million related to impairment charges recorded for ADA Analytics. Due to restructuring activities and the continued alignment of the business with strategic objectives, the Company believes operating losses related to the EC segment will decrease in 2016 and beyond.

Segment operating loss decreased during 2014 compared to 2013 most significantly impacted by the increase in operating income related to equipment and decreases in research and development due to a CO_2 research project for which the most material expenses related to the construction of equipment occurred during 2013, offset by increases in headcount, restructuring charges and legal and professional fees, most significantly due to $1.6 million of accrued expense related to the termination of the consulting agreement with the DSI Business Owner.

Liquidity and Capital Resources

Overview of Factors Affecting Our Liquidity

During 2015 our working capital and cash balances continued to decline, due principally to continued losses. Such losses were driven primarily by poor operating performance related to DSI equipment, which is included within the Emissions Control segment as of December 31, 2015, substantial and continuing expenditures required to fund the Restatement activities, and a significant reduction in the receipt of cash distributions from CCS. This deterioration of working capital directly necessitated the securing of the loan transaction described below. We expect that pressure on our working capital will continue until such time as all Restatement activities are completed, including resolution of the SEC inquiry and the conclusion of the private litigation described in Note 14 to the consolidated financial statements.

Our principal sources of liquidity currently include:

- cash on hand;
- distributions from CCS and CCSS;
- royalty payments from CCS; 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, which were used for general operating needs. Additionally, 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, 2015 or 2014. 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 certain 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, 2015 and 2014, these collateral amounts totaled $12.0 million and $11.6 million, respectively. Due to our negative working capital as well as a significant decrease in CCS distributions, we were required to obtain additional financing during the fourth quarter of 2015, as discussed below.

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”), which was subsequently amended in 2016 as discussed below. Under the original terms and conditions, the Credit Agreement matured 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 are being 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 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.

On February 8, 2016, the Company entered into the first amendment to the Credit Agreement ("First Amendment") that extended the 2015 SEC filings date to March 30, 2016. On March 30, 2016, the Company entered into the second amendment to the Credit Agreement ("Second Amendment"). The Second Amendment extended the maturity date to July 8, 2016, extended the Company's filing date deadline related to its 2015 SEC filings to April 20, 2016, increased

the stated interest rate from 10.5% to 15.0% and increased the minimum cash balance requirement from $3.0 million to $3.5 million. The Company incurred approximately $0.6 million in fees related to the Second Amendment.
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, 2015 and 2014, respectively. As stated above, we are not currently able to draw on the line of credit.

Our primary uses of liquidity in 2015, in addition to the restricted cash assets described above, include the funding of 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 (which are no longer required), 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. 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.

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 and/or repay our loan when due. Should this be the case, we will seek to refinance the loan or obtain alternative financing. If we are unable to refinance the loan or obtain alternative financing, our lenders would be entitled to take possession of 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, 2015 vs. Year ended December 31, 2014

Cash and cash equivalents decreased from $25.2 million as of December 31, 2014 to $9.3 million as of December 31, 2015, a decrease of $15.9 million.

	Years Ended December 31,		
(in thousands)	2015	2014	Change
Cash provided by (used in):			
Net cash used in operating activities	$(28,179)	$(42,549)	$14,370
Net cash provided by investing activities	2,234	31,405	(29,171)
Net cash provided by (used in) financing activities	10,029	(1,565)	11,594
Decrease in Cash and Cash Equivalents	(15,916)	(12,709)	(3,207)

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, including accounts receivable, related party ($7.8 million); ii) payment of settlement royalties ($3.7 million); iii) an increase in prepaid expenses and other long-term assets ($2.0 million); iv) a decrease in the Advance deposit, related party ($3.5 million); and, v) net payments related to extended equipment contracts ($8.7 million).

Equity income from equity method investments ($8.9 million) was also offset by actual cash distributions, included within operating and investing cash flows, from our equity method investees of $13.7 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 ($2.1 million); and ii) acquisitions of property and equipment and equity method investees ($2.6 million).

These cash outflows were offset in part by the following notable cash inflows: i) Distributions from equity method investees ($13.7 million, inclusive of both return on and return of investment distributions); and ii) non-cash charges included in the Consolidated Statements of Operations ($13.5 million).

Cash flow from operating activities

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 our efforts related to the Restatement process and SEC Inquiry increased by $2.9 million from that of the comparable prior year period, primarily due to our efforts related to the Restatement process and SEC Inquiry. We expect elevated legal and professional spend to continue in 2016 for completion of the Restatement process and efforts related to the ongoing SEC Inquiry and legal proceedings.

Deferred revenue and project costs resulted in a change in the use of operating cash flows on a net basis of $7.7 million due to production of ACI and DSI equipment systems. However, pursuant 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 $2.1 million in 2013. We did not receive additional advanced deposits during 2014 or 2015. 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.

We are required to provide collateral for certain letters of credit for ACI and DSI equipment, as discussed in Note 14 of the our Consolidated Financial Statements. Cash is pledged as security for letters of credit in the same amount as the investments. Due to the completion of certain ACI and DSI equipment contracts, the Company was no longer required to collateralize related letters of credit. During 2014, due to the increase in ACI and DSI equipment contracts in progress, the Company was required to collateralize letters of credit.

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

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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

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 future payments related to royalty indemnification obligation and other payments as discussed in Note 14 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 during 2015 and 2014 due to a contractual requirement related to the royalty indemnification obligation.

Acquisition of property and equipment and Advance on note receivable

Acquisitions of property and equipment were $0.5 million in 2015, are estimated to decrease in 2016 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 2015 and 2014, the Company used investing cash flows for the purchase of equipment and leasehold improvements.

Advance on note receivable

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. As of December 31, 2015, we have 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 described in Note 11.

Acquisition of a business

During March 2015, we acquired Clearview, which operated as ADA Analytics, for $2.4 million cash, as described in Note 8 of the Consolidated Financial Statements, $2.1 million of which was paid in the current year. The Company acquired the in-process research and development in order to potentially commercialize and expand its analytics services available to customers. However, in August 2015, as part of a broader strategic restructuring of our business to simplify our 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 Federal Mercury and Air Toxics Standards ("MATS"), the Company’s management approved an action to wind down operations of ADA Analytics.

Equity method and cost method investments

On February 10, 2014, we purchased a 24.95% membership interest in RCM6, which owns 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 $7.6 million and $10.1 million as of December 31, 2015 and 2014, respectively. During the year ended December 31, 2015 we also funded capital calls and made variable payments of $2.4 million. On March 3, 2016, we sold our entire membership interest in RCM6. We received a cash payment of $1.8 million related to the sale and have no future obligations related to previously recorded notes payable. We will continue to be positively impacted by the sale of our RCM6 membership interest going forward, as we will receive our pro-rata share of income and cash distributions through our ownership in CCS. The income and cash distribution will be generated from the RCM6 RC facility lease payments made to CCS.

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 presented within the investing section due to an increase in year over year distributions in excess of cumulative earnings from CCS. During 2015 and 2014, all cash distributions from CCS were included within investing cash flows as returns of our equity investment in CCS.

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
Short term borrowings and repayment of short term borrowings
In October 2015, we entered into a $15.0 million Credit Agreement from which we received net proceeds of $13.5 million and recorded debt discounts and debt issuance costs of $1.5 million. The Company made principal payments of $1.8 million during 2015.
Equity award activity
During 2014 we received proceeds from the exercise of options. During 2015 and 2014, we repurchased shares from employees upon the vesting of equity awards or upon options being exercised to cover the minimum statutory tax withholdings.
Notes payable activity
During the years ended December 31, 2015 and 2014 we used $1.5 million and $0.2 million cash, respectively, for repayments of principal on the RCM6 and DSI Business Owner notes payable, as described in Note 9 of the Consolidated Financial Statements. Principal payments increased period over period as the Company did not purchase RCM6 until the first quarter of 2014 and limited payments during 2014 were applied to the principal balance. Additionally, the Company did not terminate its consulting agreement with the DSI Business Owner until December 31, 2014, at which time the Company recorded a note payable for remaining amounts owed.
Significant non-cash transactions

	Years Ended December 31,		
(in thousands)	2015	2014	Change
Restricted stock award reclassification (equity to liability)	$ —	$ 501	$ (501)
Issuance of common stock to settle liabilities	—	127	(127)
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 year ended December 31, 2014, we reclassified certain restricted stock awards from equity to liabilities. No such reclassifications occurred during the year ended December 31, 2015.
During the years ended December 31, 2015 and 2014, we contributed zero and $0.1 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. On March 3, 2016, the Company sold its entire ownership interest in RCM6, a portion of which was non-cash in nature. The Company received a cash payment of $1.8 million related to the sale and has no future obligations related to previously recorded notes payable.
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, 2015. 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, 2014 vs. Year ended 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, primarily due to an increase in expenses and cash spend for payroll and benefits, legal and professional fees and general and administrative costs. Additional decreases in cash were related to acquisitions of property and equipment, cost method investments and equity method investees of $11.0 million.

(in thousands)	Years Ended December 31, 2014	2013	Change
Cash provided by (used in):			
Net cash used in operating activities	$(42,549)	(10,192)	(32,357)
Net cash provided by investing activities	31,405	11,172	20,233
Net cash provided by (used in) financing activities	(1,565)	29,169	(30,734)
Increase (Decrease) in Cash and Cash Equivalents	(12,709)	30,149	(42,858)

Cash flow from operating activities

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 Restatement process, SEC Inquiry and consulting fees paid to a former consultant for RC technology.

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.

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.

We are required to provide collateral for certain letters of credit for ACI and DSI equipment, as discussed in Note 14 of the our Consolidated Financial Statements. Cash is pledged as security for letters of credit in the same amount as the investments. Due to the completion of certain ACI and DSI equipment contracts, the Company was no longer required to collateralize letters of credit. During 2014 and 2013, due to the increase in ACI and DSI equipment contracts in progress, the Company was required to collateralize letters of credit.

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

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 14 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 due to the increase in ACI and DSI projects and a contractual requirement related to the royalty indemnification obligation.

Acquisition of property and equipment

Acquisitions of property and equipment were $1.6 million in 2014. 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. 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, as described in Note 11.

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.

Advance on note receivable

In December 2014, we loaned $0.5 million to an independent third party to provide financing to 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. It was determined that the independent third party was not awarded contracts, which would have utilized their emissions technology. Without these contracts, we concluded that the ability of the independent third party to repay these loans was in doubt. 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.

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

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 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.

Notes payable activity

During the years ended December 31, 2014 we used $0.2 million of cash for repayments of principal on the RCM6 and DSI Business Owner notes payable, as described in Note 9 of the Consolidated Financial Statements. Principal payments increased period over period as the Company didn't purchase RCM6 until the first quarter of 2014 and limited payments during 2014 were applied to the principal balance.

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 that were matched in common stock rather than cash during 2013 and a portion of 2014.
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 9 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.
Contractual Obligations
Our contractual obligations as of December 31, 2015 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 (a)	$15,910	$1,479	$2,944	$4,584	$6,903
Imputed interest (a)	12,132	2,484	4,672	3,502	1,474
Total notes payable	28,042	3,963	7,616	8,086	8,377
Short-term borrowings (b)	13,250	13,250	—	—	—
Capital lease obligations	17	9	8	—	—
Operating leases (c)	3,912	1,506	2,304	102	—
Purchase obligations (d)	—	—	—	—	—
Settlement and royalty indemnification (e)	24,022	3,749	14,293	5,980	—
Other long-term liabilities (f)	3,417	388	699	777	1,553
	$72,660	$22,865	$24,920	$14,945	$9,930

(a) On March 3, 2016, we sold our 24.95% membership interest in RCM6. As part of the consideration received from the sale, the purchaser assumed the outstanding note payable associated with our initial investment in RCM6. 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, which was paid in the first quarter of 2016. Amounts owed are included within the Notes Payable line item in the above table as of December 31, 2015.
As a result of the assumption of the future note and interest payments related to RCM6 and the settlement of the remaining amounts owed to the DSI Business Owner, excluding the $0.3 million paid to the DSI Business Owner in the first quarter of 2016, all future payments related to the notes payable amounts as of December, 31, 2015 will be eliminated.
(b) 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”) which was subsequently amended in 2016 as discussed below. Under the original terms and conditions, the Credit Agreement matured 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 discount 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. As of December 31, 2015, the unamortized debt discount and issuance costs was $0.6 million. The net proceeds were being used to fund working capital needs and for general operating purposes of the Company and its subsidiaries.

On February 8, 2016, the Company entered into the first amendment to the Credit Agreement ("First Amendment") that extended the SEC filings date to March 30, 2016. On March 30, 2016, the Company entered into the second amendment to the Credit Agreement ("Second Amendment"). The Second Amendment extended the maturity date to July 8, 2016, extended the Company's filing date deadline related to its 2015 SEC filings to April 20, 2016, increased the stated interest rate from 10.5% to

15.0% and increased the minimum cash balance requirement from $3.0 million to $3.5 million. The Company incurred approximately $0.6 million in fees related to the Second Amendment.
(c) Subsequent to December 31, 2015, and in connection with the aforementioned realignment of the Company's operations, the Company entered into an agreement to terminate various lease agreements covering approximately 207 thousand square feet of manufacturing, warehouse and office space located in Pennsylvania. As consideration for terminating the leases, the Company agreed to pay the lessor termination fees of $250 thousand in April 2016 and the same amount in April 2017. As a result, future minimum commitments under leases, net of the termination fees will be reduced by $0.9 million.
(d) 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 7 in our Consolidated Financial Statements.
(e) 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.
(f) 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 $3.9 million in 453A interest during the year ended December 31, 2016. 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.
Outstanding letters of credit were issued in connection with equipment sales agreements, collateral support for future royalty indemnity 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, 2015			
(in thousands)	2015	2014	Less than 1 year	1-3 years	4-5 years	After 5 years
Letters of credit	$12,034	$11,625	$728	$5,156	$6,150	$ —

Additional information related to the letters of credit is included in Note 14 to our Consolidated Financial Statements, included in Item 8 of this Form 10-K.
Off-Balance Sheet Arrangements
Other than the operating leases, letters of credit and 453A interest obligations discussed in Note 14 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, 2015.
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 2015, 2014 and 2013, 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. Prior to the third quarter of 2015, we had

not incurred a performance guarantee claim. If incurred, guarantees are 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 2016 or beyond. Resolution of these performance guarantees is not expected

to result in a material adverse effect on the Company's operating performance or liquidity in 2016 or beyond. However, the Company will not recognize any revenues related to these two contracts until the performance guarantee issues are resolved.

Additional details related to performance guarantees are described in Note 1 and Note 14 of the Consolidated Financial Statements of this Form 10-K.

Impairment of Equity Method Investments

Equity method investments at December 31, 2015 totaled $17.2 million, representing 28% 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, 2015, December 31, 2014 or December 31, 2013. Information related to our equity method investees is included in Note 7 of the Consolidated Financial Statements of this Form 10-K.

As of December 31, 2015, approximately $13.3 million of the $17.2 million carrying value of our equity method investments relates to our investment in RCM6. As noted above, we subsequently sold our 24.95% membership interest in RCM6 on March 3, 2016 for aggregate consideration that exceeds the carrying value of our investment. Accordingly, we have not recorded any impairment on our RCM6 investment as of or during the year ended December 31, 2015.

Settlement and Royalty Indemnification

The Settlement and royalty indemnification at December 31, 2015 totaled $20.3 million, representing 24% of total liabilities. The Settlement and royalty indemnification recorded at December 31, 2015 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 14 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 13 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 cannot predict with any certainty the final outcome of any legal proceedings as described in Note 14 of our Consolidated Financial Statements of this Form 10-K, and we cannot assure you 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. We have not recorded an expense related to losses in connection with unsettled legal matters as of December 31, 2015 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 14 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, 2015 and 2014, 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 16 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 14 of the Consolidated Financial Statements. As of December 31, 2015, $9.3 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, 2015 the applicable 453A interest rate, which, per the applicable rules is rounded to the nearest full percentage to determine interest due, was 3.56%, which was rounded to 4.00%. A 10% proportionate increase in the applicable 453A interest rate would not have increased 453A interest expense during the year ended December 31, 2014.

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, 2015 the Prime Rate was 3.50% but no amounts were outstanding on the Line of Credit.

Using the December 31, 2015 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, 2015, and a corresponding and parallel shift in the remainder of the yield curve, would result in an increase to pretax income of $9 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, 2015 and 2014, and the related consolidated statements of operations, stockholders' deficit, and cash flows for each of the three years in the period ended December 31, 2015. 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, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

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, 2015, 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 April 19, 2016 expressed an opinion that Advanced Emissions Solutions, Inc. and subsidiaries had not maintained effective internal control over financial reporting as of December 31, 2015, 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
April 19, 2016

Advanced Emissions Solutions, Inc. and Subsidiaries
Consolidated Balance Sheets

(in thousands, except share data)	As of December 31, 2015	2014
ASSETS		
Current assets:		
Cash and cash equivalents	$9,265	$25,181
Receivables, net	8,361	16,594
Receivables, related parties, net	1,918	1,439
Restricted cash	728	2,527
Costs in excess of billings on uncompleted contracts	2,137	6,153
Prepaid expenses and other assets	2,306	2,535
Total current assets	24,715	54,429
Restricted cash, long-term	10,980	8,771
Property and equipment, net of accumulated depreciation of $4,557 and $5,924, respectively	2,040	4,808
Investment securities, restricted, long-term	336	336
Cost method investment	2,776	2,776
Equity method investments	17,232	19,584
Other assets	2,696	2,995
Total Assets	$60,775	$93,699
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$6,174	$7,514
Accrued payroll and related liabilities	5,800	5,158
Current portion of notes payable, related parties	1,837	1,479
Billings in excess of costs on uncompleted contracts	9,708	22,518
Short-term borrowings	12,676	—
Settlement and royalty indemnity obligation	6,502	3,749
Other current liabilities	6,198	6,739
Total current liabilities	48,895	47,157
Long-term portion of notes payable, related parties	13,512	14,431
Settlement and royalty indemnification, long-term	13,797	20,273
Advance deposit, related party	2,980	6,524
Other long-term liabilities	6,569	6,011
Total Liabilities	85,753	94,396
Commitments and contingencies (Note 14)		
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, 21,943,872 and 21,853,263 shares issued and 21,809,164 and 21,643,342 shares outstanding at December 31, 2015 and 2014, respectively	22	22
Additional paid-in capital	116,029	110,169
Accumulated deficit	(141,029)	(110,888)
Total stockholders' deficit	(24,978)	(697)
Total Liabilities and Stockholders' Deficit	$60,775	$93,699

See Notes to the Consolidated Financial Statements.

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

	Years Ended December 31,		
(in thousands, except per share data)	2015	2014	2013
Revenues:			
Equipment sales	$60,099	$12,044	$5,747
Consulting services	1,752	4,488	6,790
Chemicals and other	888	391	749
Total revenues	62,739	16,923	13,286
Operating expenses:			
Equipment sales cost of revenue, exclusive of depreciation and amortization	45,433	9,277	9,459
Consulting services cost of revenue, exclusive of depreciation and amortization	1,518	2,203	3,827
Chemical and other cost of revenue, exclusive of depreciation and amortization	601	140	382
Payroll and benefits	23,589	20,767	16,228
Rent and occupancy	3,309	2,468	2,128
Legal and professional fees	16,604	14,430	4,534
General and administrative	6,104	6,066	4,101
Research and development, net	5,362	1,521	3,237
Depreciation and amortization	2,019	1,865	1,648
Total operating expenses	104,539	58,737	45,544
Operating loss	(41,800)	(41,814)	(32,258)
Other income (expense):			
Earnings from equity method investments	8,921	42,712	15,502
Royalties, related party	10,642	6,410	2,505
Interest income	24	74	109
Interest expense	(8,402)	(5,725)	(1,338)
Other	494	26	(44)
Total other income (expense), net	11,679	43,497	16,734
Income (loss) before income tax expense	(30,121)	1,683	(15,524)
Income tax expense	20	296	463
Net income (loss)	$(30,141)	$1,387	$(15,987)
Earnings (loss) per common share (Note 1):			
Basic	$(1.37)	$0.06	$(0.78)
Diluted	$(1.37)	$0.06	$(0.78)
Weighted-average number of common shares outstanding:			
Basic	21,773	21,554	20,103
Diluted	21,773	22,079	20,103

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, 2015, 2014 and 2013

(in thousands, except share data)	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balances, January 1, 2013	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, net	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)
Stock-based compensation	127,867	—	6,462	—	6,462
Clawback of equity awards	(20,656)	—	(325)	—	(325)
Repurchase of shares to satisfy minimum tax withholdings	(16,602)	—	(277)	—	(277)
Net loss	—	—	—	(30,141)	(30,141)
Balances, December 31, 2015	21,943,872	$ 22	$ 116,029	$ (141,029)	$ (24,978)

See Notes to the Consolidated Financial Statements.

Advanced Emissions Solutions, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2015, 2014 and 2013

(in thousands)	Years Ended December 31, 2015	2014	2013
Cash flows from operating activities			
Net income (loss)	$(30,141)	$1,387	$(15,987)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation and amortization	2,019	1,865	1,648
Amortization of debt discount and debt issuance costs	987	100	—
Non-cash research and development expenses	—	—	1,075
Impairment of property, equipment and intangibles	2,087	355	277
Provision for bad debt expense and note receivable	633	500	10
Interest costs added to principal balance of notes payable	923	1,124	—
Consulting expense financed through note payable	—	1,600	—
Share-based compensation expense	7,204	4,712	2,312
Clawback of equity awards	(325)	—	—
Earnings from equity method investments	(8,921)	(42,712)	(15,502)
Other non-cash items, net	285	38	111
Changes in operating assets and liabilities, net of effects of acquired businesses:			
Receivables	8,361	(3,651)	(6,711)
Related party receivables	(479)	(809)	1,224
Prepaid expenses and other assets	(107)	(1,877)	361
Costs incurred on uncompleted contracts	6,492	(56,606)	(19,313)
Restricted cash	1,690	(2,387)	—
Restricted cash, long-term	—	—	(4,860)
Other long-term assets	205	(47)	(49)
Accounts payable	(1,340)	2,328	2,225
Accrued payroll and related liabilities	(102)	686	1,655
Other current liabilities	(812)	(672)	5,918
Billings on uncompleted contracts	(15,186)	55,621	33,220
Advance deposit, related party	(3,544)	(2,135)	7,166
Other long-term liabilities	595	144	268
Settlement and royalty indemnification obligation	(3,722)	(4,622)	(5,245)
Distributions from equity method investees, return on investment	5,019	2,509	5
Net cash used in operating activities	(28,179)	(42,549)	(10,192)

(in thousands)	Years Ended December 31, 2015	2014	2013
Cash flows from investing activities			
Purchase of investment securities	—	(105)	(105)
Maturity of investment securities	—	210	105
Purchase of investment securities, restricted	—	(3)	(3,427)
Maturity of investment securities, restricted	—	406	5,227
Increase in restricted cash	(2,100)	(1,243)	(2,807)
Acquisition of property and equipment	(507)	(1,563)	(2,135)
Proceeds from sale of property and equipment	942	26	1
Principal payments received on notes receivable, related party	—	—	500
Advance on note receivable	(500)	(500)	—
Acquisition of business, net of cash acquired of zero	(2,124)	—	—
Purchase of cost method investment	—	(2,776)	—
Purchase of and contributions to equity method investee	(2,128)	(6,631)	—
Distributions from equity method investees in excess of cumulative earnings	8,651	43,584	13,813
Net cash provided by investing activities	2,234	31,405	11,172
Cash flows from financing activities			
Short term borrowings	13,539	—	—
Repayments on short-term borrowings	(1,750)	—	—
Gross proceeds from issuance of common stock	—	—	31,050
Stock issuance and registration costs	—	—	(2,135)
Proceeds received upon exercise of stock options	—	243	354
Repurchase of shares to satisfy minimum tax withholdings	(276)	(1,500)	—
Principal payments on note payable	(1,484)	(238)	—
Line of credit amendment fees	—	(70)	(100)
Net cash provided by (used in) financing activities	10,029	(1,565)	29,169
Increase (Decrease) in Cash and Cash Equivalents	(15,916)	(12,709)	30,149
Cash and Cash Equivalents, beginning of period	25,181	37,890	7,741
Cash and Cash Equivalents, end of period	$9,265	$25,181	$37,890
Supplemental disclosures of cash information:			
Cash paid for interest	$6,274	$5,201	$973
Cash paid for income taxes	29	566	9
Supplemental disclosure of non-cash investing and financing activities:			
Restricted stock award reclassification (equity to liability)	—	501	991
Issuance of common stock to settle liabilities	—	127	684
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 20 of the Consolidated Financial Statements.

As this filing pertains to the year ended December 31, 2015, 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, including their respective consolidated subsidiaries, unless the context indicates otherwise. As of December 31, 2015 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”)
- ADA Analytics, LLC
- ADA Analytics Israel Ltd. (collectively with ADA Analytics, LLC, "ADA Analytics")

None of ACES, ADEquity, ADA IP, ADA-RCM6 or ADA Analytics had operations prior to 2014. ADA LLC ceased operations in 2012 and ADA IP has had no operations.

During 2015, the Company elected to cease the operations of ADA Analytics. The Company anticipates that ADA Analytics will be legally dissolved during 2016. In addition, the company terminated its manufacturing operations, conducted under BCSI, effective as of the end of the 2015. The Company anticipates that BCSI will eventually be legally dissolved upon the winding down of its remaining operations, commitments and obligations. However, the Company will continue to serve the Dry Sorbent Injection ("DSI") market, which BCSI previously served, through ADA. With the exceptions of ADA Analytics, and BCSI as a manufacturing of DSI systems, ADES and its subsidiaries have continued to conduct the business in substantially the same manner as conducted prior to the Reorganization.

In addition, 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. We account for these investments using the equity method of accounting. As of December 31, 2015 the Company holds equity interests of 42.50%, 50.00%, and 24.95% in CCS, CCSS, and RCM6, respectively. During March 2016, the Company sold its entire equity interest in RCM6.

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") ("IRC Section 45") 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 oxide ("NO_x") and mercury from coal. The Company’s sales occur principally throughout the United States.

Liquidity

During the year ended December 31, 2015 the Company's working capital and cash balances continued to decline, due principally to continued losses. Such losses were driven primarily by poor operating performance related to Dry Sorbent Injection ("DSI") equipment, which is included within the Emissions Control segment as of December 31, 2015, substantial and continuing expenditures required to fund the restatement of certain prior period financial statements, including related litigation costs ("Restatement"), and a significant reduction in the receipt of cash distributions from CCS. This deterioration of working capital directly necessitated the securing of the loan transaction described in Note 9 ("Credit Agreement"). The Company expects that pressure on working capital will continue until such time as all Restatement activities are completed, including resolution of the SEC inquiry, and the conclusion of the private litigation, both of which are described in Note 14.

The Company's ability to generate sufficient cash flow required to meet ongoing operational needs and to meet obligations, including the repayment of the loan under the Credit Agreement, depends upon several factors, including executing on the Company's contracts and initiatives, 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. Increased 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 Refined Coal ("RC") facilities. If we are unable to generate sufficient cash flow, we may be unable to meet our operational needs and/or repay our loan when due. Should this be the case, we will seek to refinance the loan or obtain alternative financing. If we are unable to refinance the loan or obtain alternative financing, our lenders would be entitled to take possession of the collateral securing the indebtedness, which includes substantially all of our assets, to the extent permitted by the Credit Agreement and applicable law.

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, 2015, 2014 and 2013, respectively. In addition, during the years ended December 31, 2015, 2014 and 2013, 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 in 2014, 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)	2015	2014
Receivables	$8,518	$16,609
Less allowance for doubtful accounts	(157)	(15)
Total	$8,361	$16,594

	As of December 31,	
(in thousands)	2015	2014
Receivables, related parties	$1,918	$1,439
Total	$1,918	$1,439

During the years ended December 31, 2015 the Company recognized $0.1 million of bad debt expense related to the write-off of specific accounts whose ultimate collection was in doubt. The Company did not recognize any bad debt expense for the years ended December 31, 2014 or 2013. Bad debt expense is 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. During the years ended December 31, 2015, 2014 and 2013, the Company recorded impairment charges related to a Note Receivable of $0.5 million, $0.5 million and zero, respectively, related to the write-off of a specific account whose ultimate collection was in doubt. Interest income is accrued and credited to income based on the unpaid principal balance outstanding. The accrual of interest is discontinued when substantial doubt exists 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 11.

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, 2015 and 2014, the balance of inventory was comprised of materials and supplies and finished goods of $0.2 million and $0.6 million, respectively.

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 2015, 2014 and 2013, 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,				
	2015			2014	
(in thousands, except years)	Weighted-Average Amortization Period (in years)	Initial Cost	Net of Accumulated Amortization	Initial Cost	Net of Accumulated Amortization
Patents	20	$742	$ 581	$635	$ 523
Licensed technology	10	1,525	1,360	1,525	1,512

Total	12.9	$2,267	$ 1,941	$2,160	$ 2,035

Included in the Consolidated Statements of Operations is amortization expense of $0.4 million, zero and zero for the years ended December 31, 2015, 2014 and 2013, respectively. The estimated future amortization expense for existing intangible assets as of December 31, 2015 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, 2015, 2014 and 2013, 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 a result, equity income or loss reported on the Company's income statement for certain equity method investment entities 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. See Note 7 for additional information regarding the Company's equity method investments.

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, 2013. 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, 2015, 2014 and 2013 of $0.3 million $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 either costs incurred or total estimated 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 or, as applicable to DSI systems, the completion of any major warranty service period. 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 2015, 2014 and 2013, 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 contracts 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 11.

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)	2015	2014
Beginning balance	$152	$62
Warranties accrued, net	1,337	90
Warranty claims	(292)	—
Ending balance	$1,197	$152

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 has entered into development and cost-sharing 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 11.

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 cash dividends during the years ended December 31, 2015, 2014 or 2013.

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, depending upon the price performance of the Company's common stock as measured against a general index and a specific peer group index over requisite performance periods. 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 13 for additional information related to PSU's.

No Potential Dilutive Shares were included in the calculations for the years ended December 31, 2015 or 2013, 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

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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)	2015	2014	2013
Net income (loss)	$(30,141)	$1,387	$(15,987)
Less: Undistributed income (loss) allocated to participating securities	(275)	18	(220)
Income (loss) attributable to common stockholders	$(29,866)	$1,369	$(15,767)
Basic weighted-average number of common shares outstanding	21,773	21,554	20,103
Add: dilutive effect of equity instruments	—	525	—
Diluted weighted-average number of common shares outstanding	21,773	22,079	20,103
Earnings (loss) per share - basic	$(1.37)	$0.06	$(0.78)
Earnings (loss) per share - diluted	$(1.37)	$0.06	$(0.78)

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)	2015	2014	2013
Stock options	10	—	249
Restricted stock awards	163	—	250
Performance share units	182	—	33
Total shares excluded from diluted shares outstanding	355	—	532

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 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 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. Early adoption is permitted for financial statements that have not been previously issued. The adoption of this standard impacted the presentation of certain financial statement line items within the Company's consolidated balance sheets and related disclosures, but did 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 lessees 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.

In March 2016, the FASB issued ASU 2016-06, Derivatives and Hedging (Topic 815), which requires that embedded derivatives be separated from the host contract and accounted for separately as derivatives if certain criteria are met, including the “clearly and closely related” criterion. The amendments in this Update clarify the requirements for assessing whether contingent call (put) options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt hosts. An entity performing the assessment under the amendments is required to assess the embedded call (put) options solely in accordance with the four-step decision sequence. The amendments apply to all entities that are issuers of or investors in debt instruments (or hybrid financial instruments that are determined to have a debt host) with embedded call (put) options. ASU 2016-06 is effective for fiscal years beginning after December 15, 2016, and interim periods within those years, and must apply a modified retrospective transition approach. Early adoption 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 March 2016, the FASB issued ASU 2016-07, Investments - Equity Method and Joint Ventures (Topic 323), which simplifies the accounting for equity method investments by removing the requirement that an entity retroactively adopt the equity method of accounting if an investment qualifies for use of the equity method as a result of an increase in the level of ownership or degree of influence. The amendments require that the equity method investor add the cost of acquiring the additional interest in the investee to the current basis of the investor’s previously held interest and adopt the equity method of accounting as of the date the investment becomes qualified for equity method accounting. ASU 2016-07 is effective for fiscal years beginning after December 15, 2016, and interim periods within those years, and must apply a prospective adoption approach. Early adoption 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 March 2016, the FASB issued ASU 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net), which clarify the implementation guidance on principal versus agent considerations. ASU 2016-08 is effective for 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 Company is currently evaluating the provisions of this guidance and assessing its impact on the Company's financial statements and disclosures.

In March 2016, the FASB issued ASU No. 2016-09, Compensation-Stock Compensation- Improvements to Employee Share-Based Payment Accounting (Topic 718), which involves several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. Under the new standard, income tax benefits and deficiencies are to be recognized as income tax expense or benefit in the income statement and the tax effects of exercised or vested awards should be treated as discrete items in the reporting period in which they occur. An entity should also recognize excess tax benefits regardless of whether the benefit reduces taxes payable in the current period. Excess tax benefits should be classified along with other income tax cash flows as an operating activity. In regards to forfeitures, the entity may make an entity-wide accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur. This ASU is effective for fiscal years beginning after December 15, 2016 including interim periods within that reporting period, however early adoption is permitted. The Company is currently evaluating the guidance to determine the Company's adoption method and the effect it will have on the Company's Consolidated Financial Statements.

Note 2 - Restructuring

During the year ended December 31, 2015, 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 recorded restructuring charges related thereto.

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.

Restructuring activity during 2013 related to one employee within the All Other and Corporate category.

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

		Pretax Charge			
(in thousands, except employee data)	Approximate Number of Employees	Refined Coal	Emissions Control	All Other and Corporate	Total
Year ended December 31, 2015					
Restructuring charges	162	—	5,108	5,264	10,372
Changes in estimates		—	(10)	(2)	(12)
Total pretax charge, net of reversals		—	5,098	5,262	10,360
Year ended December 31, 2014					
Restructuring charges	29	—	1,294	2,209	3,503
Total pretax charge, net of reversals		—	1,294	2,209	3,503
Year ended December 31, 2013					
Restructuring charges	1	—	—	60	60
Total pretax charge, net of reversals		—	—	60	60

The following table summarizes the Company's utilization of restructuring accruals for the years ended December 31, 2015, 2014 and 2013:

(in thousands)	Employee Severance	Business Operations Closure
Beginning accrual as of January 1, 2013	$ —	$ —
Expense provision (1)	60	—
Cash payments and other (1)	(31)	—
Change in estimates	—	—
Accrual as of December 31, 2013	29	—
Expense provision (1)	3,503	—
Cash payments and other (1)	(1,842)	—
Change in estimates	—	—
Accrual as of December 31, 2014	1,690	—
Expense provision (1)	8,498	2,650
Cash payments and other (1)	(7,595)	(1,873)
Change in estimates	(12)	—
Accrual as of December 31, 2015	$ 2,581	$ 777

(1) Included within the Expense provision and Cash payments and other line items in the above table is equity based compensation of $3.4 million, $1.0 million and zero for the years ended December 31, 2015, 2014 and 2013, respectively, resulting from the accelerated vesting of modified equity-based compensation awards for certain terminated employees. Additionally, as discussed in Note 8, due to restructuring activities the Company fully impaired the carrying value of certain assets, thereby recognizing net impairment expense in the amount of $1.9 million during the third quarter of 2015.

Restructuring accruals related to personnel are included within the Accrued payroll and related liabilities line item in the Consolidated Balance Sheets. Restructuring expenses related to personnel are included within the Payroll and benefits and Research and development, net line items in the Consolidated Statements of Operations. Restructuring accruals related to facilities are included within the Other current liabilities line item in the Consolidated Balance Sheets. Restructuring expenses related to facilities are included within the Rent and occupancy line item in the Consolidated Statements of Operations.

Note 3 - Property and Equipment

The carrying basis and accumulated depreciation of property and equipment at December 31, 2015 and 2014, are:

(in thousands)	Life in Years	As of December 31, 2015	2014
Machinery and equipment	3-10	$3,498	$7,194
Leasehold improvements	3-7	2,172	2,198
Furniture and fixtures	3-7	927	1,340
		6,597	10,732
Less accumulated depreciation and amortization		(4,557)	(5,924)
Total property and equipment, net		$2,040	$4,808

Depreciation expense for the years ended December 31, 2015, 2014 and 2013 was $1.7 million, $1.8 million and $1.6 million, respectively.

As discussed in Note 2, 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. In doing so, the Company recognized impairment expense of approximately $0.3 million to reduce the carrying value of the assets to their estimated sales value, less estimated costs to sell. The property and equipment was subsequently sold at auction. Proceeds from the sale of the impaired assets totaled approximately $0.6 million. No gain or loss was recognized on the sale of the property and equipment.

Also during the fourth quarter of 2015, the Company sold certain property and equipment having a net book value of approximately $60 thousand. Proceeds from the sale totaled approximately $0.3 million, which resulted in the recognition of a gain on the sale of approximately $0.2 million.

The Company also closed its fabrication facility in McKeesport, Pennsylvania during the fourth quarter of 2015 and recognized $0.8 million of expense related to the abandonment of leased facilities.

Note 4 - Investments

The Company had investment securities related to certificates of deposit in the amount of $0.3 million as of December 31, 2015 and December 31, 2014. No unrealized gains or losses were recorded as of December 31, 2015 and December 31, 2014 related to these investment securities.

The Company also had a cost method investment in the amount of $2.8 million as of December 31, 2015 and December 31, 2014. No unrealized gains or losses were recorded as of December 31, 2015 and December 31, 2014 related to this investment security.

The Company's investment securities have maturities ranging from one to five years as of December 31, 2015.

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, 2015, 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, 2015, 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, 2015 and no indicators of impairment were identified.

Note 5 - 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)	2015	2014
Costs incurred on uncompleted contracts (gross)	$72,581	$79,108
Billings on uncompleted contracts (gross)	(80,152)	(95,473)
	$(7,571)	$(16,365)
Included in the accompanying balance sheets under the following captions [1]:		
Costs in excess of billings on uncompleted contracts	$2,137	$6,153
Billings in excess of costs on uncompleted contracts	(9,708)	(22,518)
	$(7,571)	$(16,365)

(1) Amounts presented after netting of costs and billings on an individual contract basis.

When it becomes apparent that a contract will ultimately be completed at a loss, the Company estimates such loss and accrues the loss as a loss contract accrual in the period that the loss determination becomes apparent. Loss contract accruals of $0.8 million and $2.9 million as of December 31, 2015 and 2014, respectively, are included in Other current liabilities line item in the Consolidated Balance Sheets. During the years ended December 31, 2015, 2014 and 2013, the Company recorded loss contract provisions of $0.3 million, $0.3 million and $4.8 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 6 - Research and Development and Government and Industry Funded Contracts

The Company has performed 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 any material adverse adjustments as a result of government audits. However, the government audits for years ended 2010 through 2015 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)	2015	2014	2013
Research and development expense	$6,737	$3,554	$13,054
Less:			
DOE funding	1,375	1,756	9,400
Industry cost-share funding	—	277	417
Net research and development expense	$5,362	$1,521	$3,237

Included within the above research and development expenses during 2015 is net impairment expense of $1.9 million for the entire carrying value of its ADA Analytics assets, as discussed in Note 2 and Note 8.

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Note 7 - Equity Method Investments

Clean Coal Solutions, LLC

As of December 31, 2015 and 2014, the Company’s ownership in CCS was 42.5%. CCS supplies 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 Refined Coal ("RC") that qualifies for tax credits available under Section 45 of the Internal Revenue Code ("Section 45 tax credits"). NexGen Refined Coal, LLC ("NexGen") and GSFS Investments I Corp. (“GSFS”), an affiliate of The Goldman Sachs Group, Inc., also own 42.5% and 15.0%, respectively. GSFS owns Class B units which provide 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. However, the Class B units do not have voting rights and ADA and NexGen each maintain a 50% voting interest in CCS.

CCS had been determined to be a VIE, however, the Company does not have the power to direct the activities that most significantly impact the VIE’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 VIE’s economic performance were shared.

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

	As of December 31,	
(in thousands)	2015	2014
Current assets	$41,099	$28,701
Non-current assets	$90,509	$52,983
Current liabilities	$60,987	$70,927
Non-current liabilities	$9,434	$22,737
Redeemable Class B equity	$30,449	$45,522
Members deficit attributable to Class A members	$25,175	$(63,027)
Noncontrolling interests	$5,563	$5,525

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Gross margin	$108,416	$89,099	$50,941
Operating expenses	23,405	21,502	17,462
Income from operations	85,011	67,597	33,479
Other expenses	(2,203)	(1,830)	(527)
Redeemable Class B preferred return	(6,157)	(8,707)	(10,189)
Loss attributable to noncontrolling interest	10,675	11,023	—
Net income available to Class A members	$87,326	$68,083	$22,763
ADES equity earnings from CCS	$8,651	$43,584	$13,813

As shown above, the Company reported earnings from its equity investment in CCS of $8.7 million, $43.6 million and $13.8 million for the years ended December 31, 2015, 2014 and 2013, respectively. The difference between the Company's proportionate share of CCS's net income (at its equity interest of 42.5%) as presented in the table below, and the Company's earnings from its CCS equity method investment as reported on its Consolidated Statements of Operations relates to the Company receiving cumulative and non-refundable distributions in excess of its cumulative, proportionate share of CCS's historical net income ("excess distributions"), thereby reducing the carrying value of the Company's equity investment in CCS to zero. In future periods, the Company will continue to report excess

distributions as its earnings from CCS until such a time as when its cumulative, proportionate share of CCS's net income equals or exceeds the amount of its cumulative, non-

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refundable distributions. Thereafter, the Company will recognize its proportionate share of CCS's net income, unless future excess distributions occur, in which case the excess distributions would be recognized as the earnings from CCS.
As shown in the table below, the Company’s carrying value in CCS has been reduced to zero in all periods presented, as cumulative, non-refundable cash distributions have exceeded the Company's cumulative, proportionate share of earnings in CCS net income. Therefore, in each of the years ended December 31, 2014 and 2013, the Company has reported its non-refundable distributions as its earnings from CCS in its Consolidated Statements of Operations.
In the Company's Consolidated Statement of Cash Flows, distributions are reported as a return on the Company's equity investment within the operating cash flows section of the Company's Consolidated Statements of 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 table shows the Company's investment balance, equity earnings and cash distributions in excess of the investment balance for the years ended December 31, 2013 through December 31, 2015 (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	12/31/2012	$—	$—	$ —	$ (8,003)
ADES proportionate share of income from CCS (1)	2013 activity	8,910	8,910	—	—
Increase of equity loss 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 proportionate share of income from CCS (1)	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 (loss) and cash distributions	12/31/2014	$—	$43,584	$ 43,584	$ (29,877)
ADES proportionate share of income from CCS (1)	2015 activity	$ 35,265	$ 35,265	$ —	$ —
Recovery of cash distributions in excess of investment balance (prior to cash distributions)	2015 activity	(29,877)	(29,877)	—	29,877
Current year cash distributions from CCS	2015 activity	(8,651)	—	8,651	—
		3,263	3,263	—	(3,263)

Adjustment for current year cash distributions in excess of investment balance	2015 activity				
Total investment balance, equity earnings and cash distributions	12/31/2015	$ —	$ 8,651	$ 8,651	$ (3,263)

(1) The amounts of the Company's 42.5% proportionate share of net income as shown in the table above differ from mathematical calculations of the Company’s 42.5% equity interest in CCS multiplied by the amounts of Net Income available to Class A members as shown in the table above of CCS results of operations due to adjustments related to the Redeemable Class B preferred return and the elimination of CCS earnings attributable to RCM6, of which the Company owned 24.95% during the years ended December 31, 2015 and 2014.

As of December 31, 2015, the Company's future proportionate share of CCS' net income must exceed approximately $3.3 million before the Company can recognize any earnings from CCS, unless future, non-refundable cash distributions occur, in which event such distributions would be recognized as earnings from CCS in the Company's consolidated statement of operations.

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, LLC

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, 2015 and 2014, the Company’s ownership in CCSS was 50%. The Company’s investment in CCSS as of December 31, 2015 and 2014 was $4.0 million and $4.1 million, respectively.

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

	As of December 31,	
(in thousands)	2015	2014
Current assets	$186,959	$215,944
Non-current assets	$3,704	$12,623
Current liabilities	$92,675	$127,858
Non-current liabilities	$1,366	$1,214
Equity	$7,936	$8,298
Noncontrolling interests	$88,686	$91,197

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Gross margin (loss)	$(42,496)	$(22,168)	$(11,055)
Operating expenses	161,456	102,757	63,247
Loss from operations	(203,952)	(124,925)	(74,302)
Other expenses	(118)	(62)	(134)
Loss attributable to noncontrolling interest	213,746	132,237	77,814
Net income	$9,676	$7,250	$3,378
ADES equity earnings from CCSS	$4,838	$3,625	$1,689

Included within the Consolidated Statement of Operations of CCSS during the years ended December 31, 2015, 2014 and 2013 were losses related to VIE entities that are consolidated with CCSS of $213.7 million, $132.2 million and $77.8 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, and eliminated in the calculations of CCSS' net income attributable to our interest.

CCSS did not meet the significant subsidiary test provided in Regulations S-X Rule 1-02 (w) in that the Company's equity earnings for the year ended December 31, 2015 or the year ended December 31, 2013 did not exceeded 20% of the Company's consolidated income from continuing operations before income taxes. However, CCSS did meet the significant subsidiary test for the year ended December 31, 2014 and therefore 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, 2015 and 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 years ended December 31, 2015 and 2014, the Company paid aggregate capital calls and variable payments totaling $2.4 million and $4.2 million, respectively. 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, 2015, the Company’s ownership in RCM6 was 24.95%. The Company’s investment in RCM6 as of December 31, 2015 and 2014 was $13.3 million and $15.4 million, respectively.

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

	As of December 31,	
(in thousands)	2015	2014
Current assets	$12,240	$11,566
Non-current assets	$2,472	$2,608
Current liabilities	$1,489	$1,534
Non-current liabilities	$7,649	$7,105
Equity	$5,574	$5,535

	Year ended December 31,	
(in thousands)	2015	2014
Gross margin (loss)	$(7,877)	$(8,257)
Operating expenses	2,178	2,123
Loss from operations	(10,055)	(10,380)
Other expenses	(641)	(666)
Net loss	$(10,696)	$(11,046)
ADES equity loss from RCM6	$(4,568)	$(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, 2015 is $11.9 million. 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. For the years ended December 31, 2015 and 2014, the Company decreased its equity method earnings in RCM6 by $1.9 million and $1.7 million, respectively, due to the basis difference.

As further discussed in Note 22, during March 2016, the Company sold its entire ownership interest in RCM6 to a third party who already owned a portion of RCM6.

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)	2015	2014
Equity method investment in CCS	$—	$—
Equity method investment in CCSS	3,968	4,149
Equity method investment in RCM6	13,264	15,435
Total equity method investments	$17,232	$19,584

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, 2015, 2014 and 2013, respectively.

The following table details the components of the Company's respective earnings or loss from 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)	2015	2014	2013
Earnings from CCS	$8,651	$43,584	$13,813
Earnings from CCSS	4,838	3,625	1,689
Loss from RCM6	(4,568)	(4,497)	—
Earnings from equity method investments	$8,921	$42,712	$15,502

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)	2015	2014	2013
Purchase of RCM6 interest from CCS	$—	$3,153	$ —
Contributions to RCM6	2,398	3,478	—
Purchase of and contributions to equity method investments	$2,398	$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)	2015	2014	2013
Distributions from equity method investees, return on investment			
CCSS	$5,019	$2,509	$5
Included in Operating Cash Flows	$5,019	$2,509	$5
Distributions from equity method investees in excess of cumulative earnings			
CCS	$8,651	$43,584	$13,813
Included in Investing Cash Flows	$8,651	$43,584	$13,813

Note 8 - Acquisitions

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. The cost of the option 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 total cash payments of $2.4 million which is inclusive of value-add tax ("VAT tax") of $0.4 million. The acquisition was accounted for under the acquisition method of accounting, which 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 were consolidated into the Company’s results of operations beginning March 6, 2015.

A summary of the purchase consideration and allocation of the purchase consideration 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 certain predetermined sales targets and the completion of certain sales transactions. These contingent payments were 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. At that time, the predetermined sales targets had not yet been achieved. Restructuring charges related to these actions are included within Note 2. As a result of these actions, the Company fully impaired the carrying value of the assets and recognized impairment expense of approximately $2.3 million. The impairment expense was partially offset by a $0.4 million gain that was recognized upon the write-off of the contingent consideration. The net amount of these was included as a component of research and development expense in Note 6.

Note 9 - Related Party Transactions

Accounts Receivables

The following table shows the Company's receivable balance associated with related parties, as of December 31, 2015 and 2014, respectively:

	As of December 31,	
(in thousands)	2015	2014
Receivable from related party - CCS	$1,918	$1,439

Accounts Payable and Advanced Deposits

The following table shows the Company's payable balance associated with related parties, exclusive of amounts owed to employees and directors in the normal course of business, as of December 31, 2015 and 2014, respectively:

	As of December 31,	
(in thousands)	2015	2014
Payable to related party - RCM6	$ 270	$ —

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Prior to 2014, the Company received advanced payments 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, 2015 and 2014, respectively:

	As of December 31,	
(in thousands)	2015	2014
Advance deposit from related party - CCS	$2,981	$6,524

Revenues

The following table shows the revenues associated with related parties, recognized by the Company during the years ended December 31, 2015, 2014 and 2013, respectively:

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Revenues from related party - CCS	$55	$665	$1,330

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

Other Income

The following table shows the other income associated with related parties, recognized by the Company during the years ended December 31, 2015, 2014 and 2013, respectively:

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Royalties, related party - CCS	$10,642	$6,410	$2,505
Interest income, related party - CCS	—	—	40
Interest income, related party - CCSS	—	—	29
	$10,642	$6,410	$2,574

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 (net of debt discount and issuance costs) classified according to payment terms, all of which are with related parties, as of December 31, 2015 and 2014, respectively:

		As of December 31,	
(in thousands)	Related Party	2015	2014
Short-term note payable			
Credit Agreement, net of discount	Franklin Mutual	$12,676	$—
Total Short-term borrowings		12,676	—
Current portion of long-term borrowings			
RCM6 note payable, net of discount	CCS	1,207	874
DSI Business Owner note payable	DSI Business Owner	630	605
Total Current portion of long-term borrowings		1,837	1,479
Total Short-term and current portion of long-term borrowings		14,513	1,479
Long-term borrowings			
RCM6 note payable, net of discount	CCS	13,023	13,312
DSI Business Owner note payable	DSI Business Owner	489	1,119
Total Long-term borrowings		13,512	14,431
Total Borrowings		$28,025	$15,910

Credit Agreement

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”) which was subsequently amended in 2016 as discussed below. Under the original terms and conditions, the Credit Agreement matured 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 discount 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. As of December 31, 2015, the unamortized debt discount and issuance costs was $0.6 million. The net proceeds were being used to fund working capital needs and for general operating purposes of the Company and its subsidiaries.

On February 8, 2016, the Company entered into the first amendment to the Credit Agreement ("First Amendment") that extended the SEC filings date to March 30, 2016. On March 30, 2016, the Company entered into the second amendment to the Credit Agreement ("Second Amendment"). The Second Amendment extended the maturity date to July 8, 2016, extended the Company's filing date deadline related to its 2015 SEC filings to April 20, 2016, increased the stated interest rate from 10.5% to 15.0% and increased the minimum cash balance requirement from $3.0 million to $3.5 million. The Company incurred approximately $0.6 million in fees related to the Second Amendment.

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.

CCS - RCM6 Note Payable

As described in Note 7, 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 $7.6 million as of December 31, 2015. Unpaid principal and interest on the note are due in 2022.

As described in Note 7 and in Note 22, on March 3, 2016, the Company sold its 24.95% membership interest in RCM6 to a third party.

DSI Business Owner

As of December 31, 2014, the Company terminated the consulting portion of the agreements with the DSI Business Owner. 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 $1.1 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 22, 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, which was paid during the first quarter of 2016.

Based upon the sale of the Company's ownership interest in RCM6, the notes payable owed to CCS was no longer due. The following table presents the future aggregate annual total borrowing amounts due, excluding unamortized discount and debt issuance costs, as of December 31, 2015, after giving effect to the RCM6 transaction and the DSI Business Owner agreement which occurred during the first quarter of 2016, discussed above:

Years Ending December 31,	Amount (in thousands)
2016	$ 13,500
2017	—
2018	—
2019	—
2020	—
Thereafter	—
Total	$ 13,500

Highview License

In November 2014, in addition to acquiring the cost method investment in Highview, as described in Note 4, 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, 2015. 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 8, 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. 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 7 for a discussion of transactions entered into with the Company's equity investees.

Note 10 - 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, 2015		As of December 31, 2014	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Financial Instruments:				
Investment securities:				
Investment securities, restricted, long-term	$336	$336	$336	$336
Cost method investment	$2,776	$2,776	$2,776	$2,776
Borrowings and Notes Payable				
Short-term borrowings	$12,676	$12,676	$—	$—
Current portion of notes payable, related parties	$1,837	$1,457	$1,479	$1,439
Long-term portion of notes payable, related parties	$13,512	$13,273	$14,431	$14,356
Highview technology license payable	$519	$519	$155	$155
Highview technology license payable, long-term	$1,038	$1,038	$1,389	$1,389
Stock appreciation rights, liability-classified equity award	$742	$742	$—	$—

(1) The fair value related to the DSI business owner note payable amounts as of December 31, 2015 was determined using the settlement agreement amount of $0.3 million, as described in Note 9.

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 4 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

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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, 2015			
	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
Liabilities:				
Stock appreciation rights, liability-classified equity award	$—	$742	$ —	$ 742
Total liabilities at fair value	$—	$742	$ —	$ 742

	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

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, 2015 and 2014, respectively.

As of December 31, 2015

(in thousands)	Fair Value Measurement Using				
	Level 1	Level 2	Level 3	Fair Value	Total Losses
Assets:					
Property and equipment	$ —	$ —	$ —	$ —	$ —
Impaired note receivable	—	—	—	—	(1,000)
Total assets at fair value	$ —	$ —	$ —	$ —	$ (1,000)

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During the fourth quarter of 2015, the Company recorded impairments totaling approximately $0.3 million to reduce the carrying value of certain property and equipment that the Company intended to sell to its estimated sales value, less estimated costs to sell. The property and equipment was subsequently sold at auction. Proceeds from the sale of the impaired assets totaled approximately $0.6 million. No gain or loss was recognized on the sale of the property and equipment.

Also during the fourth quarter of 2015, the Company sold certain property and equipment having a net book value of approximately $0.1 million. Proceeds from the sale totaled approximately $0.3 million, which resulted in the recognition of a gain on the sale of approximately $0.2 million.

	As of December 31, 2014 Fair Value Measurement Using				
(in thousands)	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 11.

Note 11 - 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)	2015	2014
Other current assets:		
Prepaid expenses	$2,117	$1,573
Inventory	189	630
Other	—	332
	$2,306	$2,535
Other long-term assets:		
Deposits	$414	$638
Intangibles	1,941	2,035
Other long-term assets	341	322
	$2,696	$2,995

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)	2015	2014
Other current liabilities:		
Accrued compensation	$369	$1,539
Accrued interest	1,042	894
Accrued losses on equipment contracts	759	3,127
Deferred revenue	682	414
Other	3,346	765
	$6,198	$6,739
Other long-term liabilities:		
Deferred rent	$767	$1,021
Warranty liabilities	1,197	152
Deferred revenue, related party	2,000	2,000
Other long-term liabilities	2,605	2,838
	$6,569	$6,011

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)	2015	2014
Asset retirement obligation, beginning of year	$1,188	$1,130
Accretion	60	58
Asset retirement obligations, end of year	$1,248	$1,188

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)	2015	2014	2013
453A interest	$4,639	$3,371	$1,313
RCM6 note payable, related party	2,468	2,245	—
Credit agreement interest	1,180	—	—
Other	115	109	25
	$8,402	$5,725	$1,338

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 12 - 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, 2015 and 2014, 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 14, 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 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 share 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. 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. The Rights expired on February 1, 2016.

Note 13 - Stock-Based Compensation

The number of shares and units described in this Note 13 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.

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 20, 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 2005 Plan terminated during 2015.

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 15.

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, 2015, 2014 and 2013, respectively:

	Years Ended December 31,		
	2015	2014	2013
Stock options granted:			
Risk-free interest rate	1.8 %	1.6 %	0.9 %
Dividend yield	— %	— %	— %
Volatility	74.5%	80.4%	91.0%
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.

Stock Appreciation Rights - Stock Appreciation Rights ("SAR's") generally vest over three years and have a contractual limit of five years from the date of grant to exercise. The fair value of SAR's 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 derived service period of the respective awards. For those awards granted during the year ended December 31, 2015, as settlement of the award is out of the control of the Company, the awards are currently classified as liability based equity awards and are recorded at the estimated fair value at each balance sheet date. The following table indicates the weighted average assumptions that were used related to the awards granted for the year ended December 31, 2015. No SAR's were granted prior to January 1, 2015.

	Years Ended December 31, 2015	
SAR's granted:		
Risk-free interest rate	1.8	%
Dividend yield	—	%
Volatility	74.5	%
Expected term (in years)	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 SAR'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.

Expected term - The Company’s expected term of SAR's was based upon consideration of the contractual term of the Company’s SAR's 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:

	Years Ended December 31,		
	2015	2014	2013
PSUs granted:			
Risk-free interest rate	1.0 %	0.8 %	0.4 %
Dividend yield	— %	— %	— %
Volatility	64.3%	74.5%	81.4%
Performance period (in years)	3.0	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)	2015	2014	2013
RSA expense	$2,909	$2,612	$1,681
Stock option expense	658	117	48
SAR expense	742	—	—
PSU expense	2,895	1,983	583
Total stock-based compensation expense	7,204	4,712	2,312
Income tax benefit from stock-based compensation expense	—	—	—
Net income impact	$7,204	$4,712	$2,312

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, 2015 and 2014, the Company modified the terms of awards granted to 37 and 17 employees, respectively, in connection with its restructuring plans and termination of the impacted employees discussed in Note 2. These modifications resulted in the accelerated vesting and incremental expense related to certain performance-based awards and restricted stock awards. As a result, during 2015 and 2014, the Company recognized incremental share-based compensation of $3.4 million and $1.0 million, 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, 2015, and the expected weighted average period over which the cost will be recognized is as follows:

	As of December 31, 2015	
(in thousands)	Unrecognized Compensation Cost	Expected Weighted Average Period of Recognition (in years)
RSA expense	$775	0.7
Stock option expense	202	0.9
SAR expense	746	0.3
PSU expense	613	1.0
Total unrecognized stock-based compensation expense	$2,336	0.7

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.					
	2015		2014		2013	
(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	209,921	$13.59	263,989	$9.05	254,156	$6.96
Granted	127,943	$14.97	112,643	$24.74	82,440	$16.88
Vested	(165,796)	$17.51	(118,364)	$15.75	(63,187)	$10.73
Forfeited (1)	(37,360)	$19.30	(48,347)	$9.49	(9,420)	$9.53
Non-vested at end of year	134,708	$8.49	209,921	$13.59	263,989	$9.05

(1) Included within the 2015 forfeited / canceled units are RSA's related to a former executive that were clawed back. The Company recognized $0.1 million within Other Income line item on the Consolidated Statement of Operations related to these awards.

The weighted-average grant-date fair value of RSA's granted or modified during the years ended December 31, 2015, 2014, and 2013 was $1.9 million, $2.8 million, and $1.4 million, respectively. The total fair value of shares vested during the years ended December 31, 2015, 2014 and 2013 was $2.9 million, $1.9 million and $0.7 million, respectively.

During the year ended December 31, 2015, the Company accelerated the terms of equity awards granted to employees as part of the reduction in workforce. The Company recorded incremental expense of $1.2 million in the Payroll and benefits line item in the Consolidated Statement of Operations.

During the years ended December 31, 2015, 2014 and 2013, the Company accelerated the vesting and expense recognition of 95,088, 55,106 and 744 RSA's granted to 37, 17 and one employees, respectively, in accordance with severance agreements. As a result, during 2015, 2014 and 2013, the Company recognized incremental share-based compensation of $1.2 million, $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, 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
For the year ended December 31, 2015					
Options outstanding, start of year	74,200		$ 13.76		
Options granted	56,250		13.87		
Options exercised	—		—		
Options expired / forfeited	(24,200	)	7.59		
Options outstanding, end of year	106,250		$ 15.22	$ —	3.76
Options vested and exercisable as of December 31, 2015	82,915		$ 14.04	$ —	3.88

The weighted-average grant-date fair value of options granted during the years ended December 31, 2015, 2014, and 2013 was $0.8 million, $0.6 million, and $0.1 million, respectively. The total intrinsic value of options exercised during the years ended December 31, 2015, 2014 and 2013 was zero, $4.9 million and $0.8 million, 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, 2015, 2014 and 2013 was zero, $6.1 million and $1.2 million, respectively.

Cash flows resulting from excess tax benefits, if any, 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, 2015, 2014, and 2013.

During 2015, approximately $0.5 million of stock-based compensation expense was recognized as a result of granting an executive officer stock options which were immediately vested, with an exercise price of $13.87 per option.

SAR's

A summary of SAR activity under the Plans is presented below:

(in thousands, except for share and per share amounts)	Years Ended December 31, 2015			
	Number of SAR's Outstanding and Exercisable	Weighted Average Exercise Price	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Term (in years)
SAR's outstanding at beginning of year	—	$ —		
Granted	243,750	$ 13.87		
Exercised	—	$ —		
Expired / forfeited	—	$ —		
SAR's outstanding, end of year	243,750	$ 13.87	$ —	4.5
SAR's vested and exercisable as of December 31, 2015	43,750	$ 13.87	$ —	0

The SAR's awarded during 2015 were granted to the Company's Chief Executive Officer. If Amendment No. 4 to the Company’s Amended and Restated 2007 Equity Incentive Plan, as amended, is approved by a vote of the stockholders prior to June 5, 2017, the SAR award will automatically terminate and the Option award granted in tandem with the SAR award will become exercisable pursuant to the vesting terms thereof. However, until stockholder approval is obtained, as settlement of the award is out of the control of the Company, the awards are currently classified as liability based equity awards and are recorded at the estimated fair value at each balance sheet date.

PSU's

A summary of the status and activity of non-vested PSU's is presented in the following table:

(in thousands, except for share and per share amounts)	For the Years Ended December 31.					
	2015		2014		2013	
	Units	Weighted-Average Grant-Date Fair Value	Units	Weighted-Average Grant-Date Fair Value	Units	Weighted-Average Grant-Date Fair Value
Non-vested at beginning of year	142,357	$ 30.65	89,578	$ 26.04	—	$ —
Granted (1)	69,218	20.10	57,547	37.45	89,578	26.04
Vested (1)	(13,763)	30.52	—	—	—	—
Forfeited / Canceled (1) (2)	(28,478)	30.44	(4,768)	26.04	—	—
Non-vested at end of year	169,334	$ 26.38	142,357	$ 30.65	89,578	$ 26.04

(1) The number of units shown in the table above are based on target performance. The final number of shares of common stock issued may vary depending on the achievement of market conditions established within the awards, which could result in the actual number of shares issued ranging from zero to a maximum of two times the number of units shown in the above table.

(2) Included within the 2015 forfeited / canceled units are PSU's related to a former executive that were clawed back. The Company recognized $0.2 million within Other Income line item on the Consolidated Statement of Operations related to these awards.

The weighted-average grant date fair value of PSU's granted during the years ended December 31, 2015, 2014, and 2013 was $1.4 million, $2.2 million, and $2.3 million, 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 years ended December 31, 2015 and 2014, the Company modified and accelerated certain PSU's that were granted to former executive officers in 2013, 2014, and 2015. The Company recorded incremental expense of $2.1 million and $0.2 million in the Payroll and benefits line item in the Consolidated Statement of Operations.

The following table shows the PSUs that were settled by issuing the Company's common stock relative to a peer group performance index and broad stock index.

	Year of Grant	Net Number of Issued Shares upon Vesting	Shares Withheld to Settle Tax Withholding Obligations	TSR Multiple Range		Russell 3000 Multiple	
				Low	High	Low	High
For the year ended December 31, 2015							
	2013	8,768	3,954	1.75	1.75	2.00	2.00
	2014	2,506	1,145	0.63	0.75	—	0.75

There were no PSUs settled during the year ended December 31, 2014.

Other Matters

Cash received from the exercise of stock options for the years ended December 31, 2015, 2014 and 2013 was zero, $0.2 million, and $0.4 million, respectively. There were no other cash receipts during these years from the exercise of other share-based compensation arrangements.

Note 14 - 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. We cannot predict with any certainty the final outcome of any legal proceedings as described in the paragraphs below, and we cannot assure you 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.

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

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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. On March 7, 2016 the parties filed a stipulated motion to stay the case while the parties mediate the matter. On March 8, 2016, the motion to stay was granted, and the Defendants' motion to dismiss was denied without prejudice with the option to refile should mediation fail. The case is stayed until further order of the court.

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 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014. 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"). In August 2011, the Company and Norit entered into a settlement agreement whereby the Company paid amounts related to the non-solicitation breach of contract claim and ADA was also required to pay additional damages related to certain future revenues generated from the former 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. In October 2011, an 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 and 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. 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, 2015 and 2014, 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)	2015	2014
Settlement and royalty indemnity obligation, short-term	$6,502	$3,749
Settlement and royalty indemnification, long-term	13,797	20,273
Total settlement and royalty indemnity	$20,299	$24,022

Future amounts to be paid related to the Royalty Award may materially differ from current estimates due to future revenues generated from the former equity method investment.
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. No liability or expense provision has been recorded by the Company related to this contingent obligation as the Company believes that it is not probable that a loss will occur with respect to CCS Party Guaranties.
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 was 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, 2015, December 31, 2014 and 2013, the Company recorded expenses under this agreement of $0.3 million, $1.4 million and $0.6 million, respectively. 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, 2015 and 2014, respectively. As a result of certain covenant violations, the Company has no borrowing availability under this facility.

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, 2015			
(in thousands)	LOC Outstanding	Restricted Cash	Restricted cash, long-term	Investment securities, restricted, long-term
Contract performance - equipment systems	$5,556	$ 728	$ 4,830	$ —
Royalty indemnification	6,150	—	6,150	—
Other	328	—	—	336
Total LOC outstanding	$12,034	$ 728	$ 10,980	$ 336

	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

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, 2015:

	Expiration of Letters of Credit as of December 31, 2015			
(in thousands)	Less than 1 year	1-3 years	4-5 years	After 5 years
Letters of credit	$728	$5,156	$6,150	$ —

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. With respect to certain contracts, in the event the level of mercury removal is not achieved, "make right" provisions within the contracts may require the Company to spend additional funds, up to the total value of the contract, to make the necessary modifications and corrections to the equipment, and related systems, in order to meet the mercury removal specification. As of December 31, 2014, the Company had 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.

During 2015, the Company began working to modify and correct two performance guarantee issues, subject to "make right" provisions, 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 2016 or beyond. However, the Company will not recognize any revenues related to these two contracts until the performance guarantee issues are resolved.

Purchase Obligations

The Company does not have any future purchase obligations as of December 31, 2015.

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 under operating leases. As of December 31, 2015, the Company leased approximately 259 thousand square feet under approximately five 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, 2015 are as follows:

Years Ending December 31,	Operating Lease Commitments
	(in thousands)
2016	$ 1,506
2017	1,298
2018	1,006
2019	102
2020	—
Thereafter	—
Total	$ 3,912

Rental expense incurred for the years ended are as follows:

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Rent expense	$1,838	$1,531	$871

Note 15 - 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)	2015	2014	2013
401(K) employer expense	$439	$509	$625

Note 16 - Income Taxes

The provision for income taxes consists of the following:

	Years Ended December 31,		
(in thousands, except for rate)	2015	2014	2013
Current portion of income tax expense:			
Federal	$—	$—	$—
State	20	296	463
	20	296	463
Deferred portion of income tax expense	—	—	—
Total income tax expense	$20	$296	$463
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)	2015	2014	2013
	Amount	Amount	Amount
Federal statutory rate	$(10,542)	$ 589	$(5,435)
State income taxes, net of federal benefit	(781)	31	(1,077)
Disallowed compensation	—	721	—
Permanent differences	35	52	45
Tax credits	(38,998)	(25,607)	(14,727)
Valuation allowances	50,066	23,794	21,843
Changes in state effective rates	(243)	716	—
Share based compensation	487	—	—
Other	(4)	—	(186)
Expense (Benefit) for the provision for income taxes	$20	$ 296	$463

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, 2015	2014
Deferred tax assets		
Settlements	$7,807	$9,177
Deferred revenues and loss contract provisions	2,899	4,650
Employee related liabilities	4,598	3,643
Intangible assets	1,733	1,070
Equity method investments	7,500	7,507
Net operating loss carryforward	23,193	10,831
Tax credits	97,484	58,486
Deposits on equipment contracts	1,146	2,492
Other	2,118	1,105
Total deferred tax assets	148,478	98,961
Less valuation allowance	(148,269)	(98,203)
Net deferred tax assets	209	758
Less: Deferred tax liabilities		
Property and equipment and other	(209)	(758)
Total deferred tax liabilities	(209)	(758)
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, 2015. As of December 31, 2015 and 2014, the Company has recorded a full valuation allowance against the net deferred tax assets of $148.3 million and $98.2 million, respectively, to reflect the estimated amount of deferred tax assets that may not be realized. During 2015, the Company's valuation allowance increased by $50.1 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, 2015	Beginning expiration year	Ending expiration year
Federal net operating loss carryforwards	$59,042	2031	2035
State net operating loss carryforwards	$62,422	2017	2035
Federal tax credit carryforwards	$97,484	2031	2035

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, 2015, 2014 and 2013. 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 11.

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 17 - 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, 2015, the Company's CODM was the Company's CEO. 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.

During the fourth quarter of 2015, the Company realigned is operating segments into two reportable segments: (1) Refined Coal ("RC"); and (2) Emissions Control ("EC"). Following the realignment, the Company retroactively adjusted all segment related disclosures included within the notes to the Consolidated Financial Statements.

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 revenues include 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.
- 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, 2015, 2014 and 2013. All assets are located in the U.S. and all significant customers are U.S. companies.

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Revenues:			
Refined Coal:			
Earnings from equity method investments	$8,921	$42,712	$15,502
Consulting services	55	665	1,330
Royalties, related party	10,642	6,410	2,505
	19,618	49,787	19,337
Emissions Control:			
Equipment sales	60,099	12,044	5,747
Consulting services	1,697	3,823	5,460
Chemical and other	888	391	749
	62,684	16,258	11,956
Total segment reporting revenues	$82,302	$66,045	$31,293
Adjustments to reconcile to reported revenues:			
Refined Coal:			
Earnings from equity method investments	$(8,921)	$(42,712)	$(15,502)
Royalties, related party	(10,642)	(6,410)	(2,505)
	(19,563)	(49,122)	(18,007)
Total reported revenues	$62,739	$16,923	$13,286
Segment reporting operating income (loss)			
Refined Coal	$12,131	$42,094	$16,227
Emissions Control	(7,583)	(13,348)	(14,494)
Total segment operating income (loss)	$4,548	$28,746	$1,733

A reconciliation of reportable segment amounts to the Company's consolidated balances is as follows:

	Years Ended December 31,		
(in thousands)	2015	2014	2013
Segment income			
Total reported segment operating income (loss)	$4,548	$28,746	$1,733
Adjustments to reconcile to net loss attributable to Advanced Emissions Solutions, Inc.			
Corporate payroll and benefits	(14,842)	(12,621)	(10,898)
Corporate rent and occupancy	(707)	(694)	(593)
Corporate legal and professional fees	(15,199)	(9,514)	(2,563)
Corporate general and administrative	(3,640)	(3,980)	(2,961)
Corporate depreciation and amortization	(578)	(354)	(307)
Interest income	24	74	109
Other income (expense)	273	26	(44)
Income tax (expense) benefit	(20)	(296)	(463)
Net income (loss)	$(30,141)	$1,387	$(15,987)

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)	2015	2014
Assets:		
Refined Coal	$19,507	$21,322
Emissions Control	31,467	51,891
All Other and Corporate	9,801	20,486
Consolidated	$60,775	$93,699

Note 18 - 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)	2015	2014	2013
A	Equipment sales, Consulting services	EC	16%	37%	2%
B	Equipment sales, Consulting services, Other	EC	2%	24%	—%
C	Equipment sales	EC	—%	1%	11%
D	Consulting services	EC	11%	8%	12%
E	Equipment sales	EC	—%	—%	25%
F	Equipment sales	EC	15%	—%	—%

Note 19 - Quarterly Financial Results (unaudited)

Summarized quarterly results for the two years ended December 31, 2015 and December 31, 2014, respectively, are as follows:

(in thousands, except per share data)	For the Quarter Ended December 31, 2015	September 30, 2015	June 30, 2015	March 31, 2015
Revenues	$13,202	$ 12,885	$14,895	$21,757
Cost of revenues, exclusive of operating expenses shown below	7,224	10,610	14,003	15,715
Other operating expenses	13,113	12,264	18,670	12,940
Operating loss	(7,135)	(9,989)	(17,778)	(6,898)
Earnings (loss) from equity method investments	3,788	(41)	4,860	314
Royalties, related party	2,876	3,273	2,299	2,194
Other income (expenses), net	(2,568)	(1,853)	(1,765)	(1,698)
Income (loss) before income tax expense	(3,039)	(8,610)	(12,384)	(6,088)
Income tax expense	(131)	44	63	44
Net income (loss)	$(2,908)	$ (8,654)	$(12,447)	$(6,132)
Earnings (loss) per common share – basic	$(0.13)	$ (0.40)	$(0.57)	$(0.28)
Earnings (loss) per common share – diluted	$(0.13)	$ (0.40)	$(0.57)	$(0.28)
Weighted-average number of common shares outstanding (1)				
Basic	21,676	21,687	21,715	21,696
Diluted	21,676	21,687	21,715	21,696

(in thousands, except per share data)	For the Quarter Ended 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 income (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.

Note 20 - 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.

Note 21 - Unaudited Pro-Forma Condensed Financial Information

The unaudited pro forma condensed balance sheet and unaudited pro forma condensed statement of operations (collectively, “unaudited pro forma condensed financial information”) of Advanced Emissions Solutions, Inc. (“ADES” or the “Company”) give effect to the following transaction, the sale of RCM6, LLC ("RCM6") as if it occurred on January 1, 2015 for the pro forma condensed combined statement of operations, and as if it occurred on December 31, 2015 for the pro forma condensed balance sheet:

- the Company's disposition, through its wholly-owned subsidiary ADA-RCM6, LLC, of its 24.95% membership interest in RCM6, which the Company accounted for using equity-method accounting, which closed on March 3, 2016 ("RCM6 Disposition")

The unaudited pro forma condensed financial information is based on the historical consolidated financial statements of the Company. The pro forma condensed financial information is presented for illustrative purposes only, is based on certain assumptions that we believe are reasonable, and is not necessarily indicative of our financial position or the results of our operations that would have occurred had the RCM6 Disposition been completed as of the dates indicated, nor is it necessarily indicative of our future operating results or financial position. In the opinion of management, all adjustments have been made that are necessary to fairly present the unaudited pro forma condensed financial information. Assumptions and estimates underlying the pro forma adjustments are described in the accompanying notes, which should be read in conjunction with the unaudited pro forma condensed consolidated financial information. The information presented in the unaudited pro forma condensed balance sheet as of December 31, 2015 assumes the RCM6 Disposition was completed on that date. The information presented in the unaudited pro forma condensed statements of operations for the year ended December 31, 2015 assumes that the RCM6 Disposition was completed as of January 1, 2015. The actual amounts recorded upon finalization of the accounting for dates subsequent to December 31, 2015 for the balance sheet and January 1, 2015 for the statement of operations may differ materially from the information presented in the accompanying unaudited pro forma condensed financial information.

Advanced Emissions Solutions, Inc. and Subsidiaries
Unaudited Pro Forma Condensed Consolidated Balance Sheet
As of December 31, 2015

(in thousands)	ADES Historical	Pro Forma adjustments related to RCM6 Disposition		ADES Pro Forma
ASSETS				
Current assets:				
Cash and cash equivalents	$ 9,265	$ 1,773	A	$ 11,038
Receivables, net	8,361	—		8,361
Receivables, related parties, net	1,918	—		1,918
Restricted cash	728	—		728
Costs in excess of billings on uncompleted contracts	2,137	—		2,137
Prepaid expenses and other assets	2,306	—		2,306
Total current assets	24,715	1,773		26,488
Restricted cash, long-term	10,980	—		10,980
Property and equipment, net of accumulated depreciation	2,040	—		2,040
Investment securities, restricted, long-term	336	—		336
Cost method investment	2,776	—		2,776
Equity method investments	17,232	(13,264)	B	3,968
Other assets	2,696	—		2,696
Total Assets	$ 60,775	$ (11,491)		$ 49,284
LIABILITIES AND STOCKHOLDERS' DEFICIT				
Current liabilities:				
Accounts payable	$ 6,174	$ —		6,174
Accrued payroll and related liabilities	5,800	—		5,800
Current portion of notes payable, related parties	1,837	(1,207)	B	630
Short-term borrowings	12,676	—		12,676
Billings in excess of costs on uncompleted contracts	9,708	—		9,708
Settlement and royalty indemnity obligation	6,502	—		6,502
Other current liabilities	6,198	—		6,198
Total current liabilities	48,895	(1,207)		47,688
Long-term portion of notes payable, related parties	13,512	(13,023)	B	489
Settlement and royalty indemnification, long-term	13,797	—		13,797
Advance deposit, related party	2,980	—		2,980
Other long-term liabilities	6,569	—		6,569
Total Liabilities	85,753	(14,230)		71,523
Commitments and contingencies				
Stockholders' deficit:				
Preferred stock	—	—		—
Common stock	22	—		22
Additional paid-in capital	116,029	—		116,029
Accumulated deficit	(141,029)	2,739	C	(138,290)
Total stockholders' deficit	(24,978)	2,739		(22,239)
Total Liabilities and Stockholders' Deficit	$ 60,775	$ (11,491)		$ 49,284

Advanced Emissions Solutions, Inc. and Subsidiaries
Unaudited Pro Forma Condensed Consolidated Statement of Operations
Year ended December 31, 2015

(in thousands, except per share data)	ADES Historical	Pro Forma adjustments related to RCM6 Disposition		ADES Pro Forma
Revenues:				
Equipment sales	$60,099	$ —		$60,099
Consulting services	1,752	—		1,752
Chemicals and other	888	—		888
Total revenues	62,739	—		62,739
Operating expenses:				
Equipment sales cost of revenue, exclusive of depreciation and amortization	45,433	—		45,433
Consulting services cost of revenue, exclusive of depreciation and amortization	1,518	—		1,518
Chemical and other cost of revenue, exclusive of depreciation and amortization	601	—		601
Payroll and benefits	23,589	—		23,589
Rent and occupancy	3,309	—		3,309
Legal and professional fees	16,604	—		16,604
General and administrative	6,104	—		6,104
Research and development, net	5,362	—		5,362
Depreciation and amortization	2,019	—		2,019
Total operating expenses	104,539	—		104,539
Operating loss	(41,800)	—		(41,800)
Other income (expenses):				
Earnings from equity method investments	8,921	4,568	D	13,489
Royalties, related party	10,642	—		10,642
Interest income	24	—		24
Interest expense	(8,402)	2,468	E	(5,934)
Other	494	524	F	1,018
Total other income (expense), net	11,679	7,560		19,239
Income (loss) before income tax expense	(30,121)	7,560		(22,561)
Income tax expense	20	—	G	20
Net income (loss)	$(30,141)	$ 7,560		$(22,581)
Earnings (loss) per common share:				
Basic	$(1.37)			$(1.04)
Diluted	$(1.37)			$(1.04)
Weighted-average number of common shares outstanding:				
Basic	21,773			21,773
Diluted	21,773			21,773

Pro Forma Note 1 - Basis of Presentation

The unaudited pro forma condensed financial information presented is derived from the Company' s audited financial statements as of and for the fiscal year ended December 31, 2015 included in this Form 10-K. The unaudited pro forma condensed financial information has been prepared to reflect the pro forma impact of the RCM6 Disposition on those financial statements at or as of the dates indicated, and is presented for illustrative purposes only and is not necessarily indicative of the Company's financial position or results of operations that would have occurred had the RCM6 Disposition been completed at

or as of the dates indicated, nor is it necessarily indicative of our future operating results or financial position. The information presented in the unaudited pro forma condensed balance sheet as of December 31, 2015 assumes the RCM6 Disposition was completed on that date. The information presented in the unaudited pro forma condensed statements of operations for the year ended December 31, 2015 assumes that the RCM6 Disposition was completed as of January 1, 2015.

Pro forma adjustments reflected in the unaudited pro forma condensed balance sheet are based on items that are directly attributable to the RCM6 Disposition and factually supportable. Pro forma adjustments reflected in the unaudited pro forma condensed statement of operations are based on items directly attributable to the RCM6 Disposition, factually supportable and expected to have a continuing impact on ADES.

Pro Forma Note 2 - Unaudited Pro Forma Balance Sheet Adjustments

Pro Forma Balance Sheet Adjustments:

A. Represents the actual cash received by ADES from the buyer upon closing of the RCM6 Disposition. In determining these pro-forma adjustments, the Company has assumed that the consideration received, had the transaction occurred on December 31, 2015, would have also been the actual cash received upon Disposition in the amount of$1.773 million. The actual amount of cash consideration that may have been received by the Company had the closing occurred on December 31, 2015 would likely have been different. Matters potentially impacting the actual amount of consideration received as of the RCM6 Disposition date include capital contributions to RCM6 and payments related to the Company's note payable balance for the acquisition of RCM6, which occurred from January 1, 2016 through the RCM6 Disposition date.

B. Represents the removal of the carrying value of the Company’s equity method investment in RCM6 and related assets and liabilities as a result of the RCM6 Disposition. The Company’s equity method investment in RCM6 is discussed within Note 7. The liabilities removed include short-term and long-term portions of the Company's note payable related to the acquisition of RCM6 membership interests, which are discussed within Note 7 and Note 9. The note payable was assumed by the buyer as partial consideration for the sale.

C. Represents the estimated gain on the sale of RCM6 membership interest that would have been recognized had the RCM6 Disposition occurred as of December 31, 2015.

Pro Forma Statement of Operations Adjustments

D. Represents the elimination of the losses from the Company's RCM6 equity method investment included within the Company's Consolidated Statement of Operations for the year ended December 31, 2015. The losses from the Company's investment were discussed within Note 7.

E. Represents the elimination of the interest expense related to the note payable that was assumed by the buyer as partial consideration for the sale. This interest expense was included in total interest expense recognized by the Company for the year ended December 31, 2015, as discussed within Note 11.

F. Represents the estimated gain that the Company would have recognized had the RCM6 Disposition occurred on January 1, 2015.

The following table presents the components of the pro forma loss calculation:

(in thousands)	
Cash received upon RCM6 Disposition (1)	$1,773
Note payable balance - as of January 1, 2015	14,186
Subtotal	15,959
Estimated assets relinquished - as of January 1, 2015	15,435
Estimated pro forma gain for the year ended December 31, 2015	$524

(1) Represents the actual cash received by ADES from the buyer upon closing of the RCM6 Disposition. In determining these pro-forma adjustments, the Company has assumed that the consideration received, had the transaction occurred on January 1, 2015, would have also been the cash received upon Disposition in the amount of $1.773 million. The actual amount of cash consideration that may have been received by the Company had the closing occurred on January 1, 2015 would likely have been different. As a result, the estimate of the pre-tax gain or loss as of that date would change in direct correlation to the actual change in cash received. Matters potentially impacting the actual amount of consideration received as of the RCM6 assumed pro-forma disposition date of January 1, 2015

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include capital contributions to RCM6 and payments related to the Company's note payable balance for the acquisition of RCM6 which occurred from January 2, 2015 through the RCM6 Disposition date.

(2) Based on the purchase price accounting related to the Company's acquisition of RCM6, as described in Note 7.

G. Although the Company earned, directly as a result of its investment in RCM6, tax credits of approximately $5.5 million during the year ended December 31, 2015 and tax benefits due to the RCM6 operating losses, the Company's maintains a full valuation allowance against all of its deferred tax assets; therefore, there are no tax effect adjustments to the pro forma consolidated statement of operations for the year ended December 31, 2015.

Note 22 - Subsequent Events

In March 2016, the Company entered into an agreement to settle all amounts outstanding under the DSI Business Owner note payable for a one-time payment of approximately $0.3 million. The Company will recognize a gain on the extinguishment of debt of approximately $0.8 million during the first quarter of 2016.

Also in March 2016, the Company entered into an agreement to terminate various lease agreements covering approximately 207 thousand square feet of manufacturing, warehouse and office space located in Pennsylvania. As consideration for terminating the leases, the Company agreed to pay the lessor termination fees of $250 thousand in April 2016 and the same amount in April 2017. As a result, future minimum commitments under leases and annual rent expense will be reduced by approximately $0.4 million and $0.2 million for the years ended December 31, 2016 and 2017, respectively. The Company will also record a gain related to the difference between the amount accrued as of the cease use date of December 31, 2015 and the settlement amount during the first quarter of 2016.

On March 3, 2016, the Company sold its 24.95% membership interest in RCM6 for a cash payment of approximately $1.8 million and assumption of the outstanding note payable made by the Company in connection with its purchase of RCM6 membership interests from CCS in February 2014. As a result of the sale, the Company is no longer a member of RCM6 and is no longer subject to any quarterly capital calls and variable payments to RCM6. However, the Company will still be positively impacted by the RCM6 RC facility in that it will receive its pro-rata share of income and cash distributions through its ownership in CCS. The income and cash distribution will be generated from the RCM6 RC facility lease payments made to CCS.

On February 8, 2016, the Company entered into the first amendment to the Credit Agreement ("First Amendment") that extended the SEC filings date to March 30, 2016. On March 30, 2016, the Company entered into the second amendment to the Credit Agreement ("Second Amendment"). The Second Amendment extended the maturity date to July 8, 2016, extended the Company's filing date deadline related to its 2015 SEC filings to April 20, 2016, increased the stated interest rate from 10.5% to 15.0% and increased the minimum cash balance requirement from $3.0 million to $3.5 million. The Company incurred approximately $0.6 million in fees related to the Second Amendment.

In April 2016, the Company initiated a workforce reduction plan affecting approximately 30% of the Company’s employees ("Restructuring"). In connection with these actions, the Company currently expects to record aggregate charges with respect to severance payments, benefits continuation and vesting of certain equity awards that are estimated to be approximately $0.6 million - $0.9 million and are expected to be recorded during the second and third quarters of 2016. Cash expenditures related to the Restructuring are expected to be approximately $0.6 million - $0.9 million.

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 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 material 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, 2014, and 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

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, 2015, 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, 2015, 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.

Notwithstanding the ineffective disclosure controls and procedures, the material weaknesses discussed below, and the filings that will not be made or were not filed timely, 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

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, 2015, utilizing the criteria set forth in the Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in 2013. Management has concluded that the control environment was not effective due to the following material weaknesses as of December 31, 2015. 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 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. Specifically, the Company identified the following factors relating to the control environment:

- 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.
- We did not perform ongoing and separate evaluations of all of the controls, including those implemented in 2015.
- 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.

Ineffective internal control monitoring activities to support the financial reporting process and failure to maintain adequate evidence of control operations

The Company's system of internal controls did not sufficiently promote effective internal control over financial reporting. Principal contributing factors included insufficient time to fully implement and document all of the control activities that contribute to the mitigation of risks of a material fraud or errors in the financial statements. As a result, we were not able to effectively monitor or report on the effectiveness of the system of internal controls.

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, 2015, the Company's internal controls over financial reporting were not effective.

The Company's internal control over financial reporting as of December 31, 2015 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

As reported in Item 9A of the Corporation’s 2014 Form 10-K, material weaknesses existed in the Corporation’s control structure as of December 31, 2014. As of December 31, 2015 we had implemented the following remediation steps:

- 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 Restatement 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 Restatement and preparation of prior year financial statements.
- We have continued to create and implement accounting and information technology policies and procedures, including written technical accounting memos required under GAAP.
- We have designed additional controls around identification, documentation and application of technical accounting guidance.

During 2015 we continued to implement numerous changes in an ongoing effort to remediate material weaknesses in our internal controls over financial reporting identified as of December 31, 2014. Additional remediation steps have been taken including, but not limited to the following matters:

- We have implemented a Business Operating Model that supports the development and implementation of an effective internal control over financial reporting framework.
- We have developed key financial policies to drive financial reporting decisions and practices.
- We have developed and implemented control remediation monitoring and processes for reporting to management and the BOD.

Although we are currently in the process of implementing our remediation plans, we have 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, 2015 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, 2015, 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 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. Specifically, the Company identified the following factors relating to the control environment:

- 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 our information systems did not contain and generate information that was of sufficient quality to support the effective operation of controls.
- The Company did not perform ongoing and separate evaluations of all of the controls, including those implemented in 2015.
- 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.

Ineffective internal control monitoring activities to support the financial reporting process and failure to maintain adequate evidence of control operations.
The Company's system of internal controls did not sufficiently promote effective internal control over financial reporting. Principal contributing factors included insufficient time to fully implement and document all of the control activities that contribute to the mitigation of risks of a material fraud or errors in the financial statements. As a result, the Company was not able to effectively monitor or report on the effectiveness of the system of internal controls.

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:

- 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 2015 financial statements, and this report does not affect our report dated April 19, 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, 2015, 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 on 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.

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, 2015 and 2014, and the related consolidated statements of operations, stockholders' deficit, and cash flows for each of the three years in the period ended December 31, 2015 and our report dated April 19, 2016 expressed an unqualified opinion.

/s/Hein & Associates LLP

Denver, Colorado
April 19, 2016

Item 9B. Other Information
None.

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PART III

Item 10. Directors, Executive Officers, and Corporate Governance

The information required by this Item concerning the Company's Directors, Executive Officers, and corporate governance is incorporated by reference to the information provided under the captions "Proposal 1 - Election of Directors," "Information about Executive Officers," and "Corporate Governance" in the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed within 120 days from December 31, 2015.

The information required by this Item concerning compliance with Section 16(a) of the Securities Exchange Act of 1934 is incorporated by reference to the information provided under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed within 120 days from December 31, 2015.

Item 11. Executive Compensation

The information required by this Item is incorporated by reference to the information provided under the captions "Executive Compensation" and "Director Compensation" in the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed within 120 days from December 31, 2015.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item concerning security ownership of certain beneficial owners and management is incorporated by reference to the information provided under the caption "Security Ownership of Certain Beneficial Owners and Management" in the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed within 120 days from December 31, 2015.

Securities Authorized for Issuance Under Equity Compensation Plans. The Company has equity plans under which options and shares of the Company common stock are authorized for grant or issuance as compensation to eligible employees, consultants, and members of the Board of Directors. Our stockholders have approved these plans except for Amendment Nos. 3 and 4 to the Company's Amended and Restated 2007 Equity Incentive Plan, as amended. See Note 13 Stock-Based Compensation included in Part II, Item 8 of this report for further information about the material terms of our equity compensation plans. The following table is a summary of the shares of common stock authorized for issuance under the equity compensation plans as of December 31, 2015:

Plan Category	Number of securities issued	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders:		
Equity Incentive Compensation Plan		
2007 Plan	492,878	707,122
2010 Plan	370,382	229,618
401(k) Plan	34,548	565,452
Total for Equity Incentive Compensation Plan	897,808	1,502,192

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Item 13. Certain Relationships and Related Transactions and Director Independence.

The information required by this Item is incorporated by reference to the information provided under the captions "Certain Relationships and Related Transactions" and "Corporate Governance" in the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed within 120 days from December 31, 2015.

Item 14. Principal Accountant Fees and Services.

The information required by this Item is incorporated by reference to the information provided under the captions "Independent Registered Public Accounting Firm" and "Audit Committee Preapproval Policy and Procedures" in the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed within 120 days from December 31, 2015.

Item 15. Exhibits and Financial Statement Schedules.

(a) The following consolidated financial statements of Advanced Emissions Solutions, Inc., are filed as part of this report under Item 8 - Financial Statements and Supplementary Data:

(1) Financial Statements – see Index to Consolidated Financial Statements in Item 8;

(2) Financial Statement Schedules – All schedules are omitted because the required information is not applicable or is not present in amounts sufficient to require submission of the schedule or because the information required is included in the Consolidated Financial Statements and Notes thereto; and

(3) Exhibits – Those exhibits required by Item 601 of Regulation S-K and by paragraph (b) below.

(b) The following exhibits are filed as part of this report or, where indicated, were heretofore filed and are hereby incorporated by reference:

Exhibit No.	Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
3.1	Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc.	10-Q	000-54992	3.1	August 9, 2013
3.2	Bylaws of Advanced Emissions Solutions, Inc.	10-Q	000-54992	3.2	August 9, 2013
3.3	Certificate of Designation, Preferences, and Rights of Series A Junior Participating Preferred Stock of Advanced Emissions Solutions, Inc.	8-K	000-54992	3.1	February 2, 2015
3.4	Amendment #1 to the Bylaws of Advanced Emissions Solutions, Inc., dated as of July 23, 2014	8-K	000-54992	3.1	July 29, 2014
4.1	Form of Specimen Common Stock Certificate	10-Q	000-54992	4.1	August 9, 2013
4.2	Standstill and Registration Rights Agreement between ADA-ES, Inc. and Arch Coal, Inc. dated September 19, 2003	10-KSB	000-50216	4.3	March 30, 2006
4.3	Profit Sharing Retirement Plan Adoption Agreement	S-8	333-159715	4.1	June 3, 2009
4.4	American Funds Distributors, Inc. Non-standardized 401(K) Plan	S-8	333-159715	4.1	June 3, 2009
4.5	American Funds Distributors, Inc. Defined Contribution Prototype Plan and Trust	S-8	333-159715	4.2	June 3, 2009
4.6	ADA Insider Trading Policy Appendix	10-K	000-50216	4.9	March 28, 2011
4.7	Employer Stock Addendum to Trust Agreement	S-8	333-159715	4.4	June 3, 2009
4.8	Registration Rights Agreement between ADA-ES, Inc. and Arch Coal, Inc. dated March 23, 2010	10-Q	000-50216	4.1	May 13, 2010
4.9	Stockholder Agreement dated July 7, 2003, between ADA-ES, Inc., Arch Coal, Inc., and Earth Sciences, Inc.	8-K	000-50216	4.12	September 14, 2011
4.10	Rights Agreement dated as of February 1, 2015, by and between the Company and Computershare Trust Company, N.A., as rights agent, which includes as Exhibit B the Form of Rights Certificate.	8-K	000-54992	4.1	February 2, 2015
10.1	2003 Stock Option Plan**	10-KSB	000-50216	10.2	March 30, 2006
10.2	2003 Stock Compensation Plan #1**	S-8	333-110479	99.2	November 14, 2003
10.3	2004 Stock Compensation Plan #2 and model stock option agreements**	S-8	333-121234	99.3	December 14, 2004
10.4	2005 Directors' Compensation Plan**	10-KSB	000-50216	10.29	March 30, 2006

10.5	Amended and Restated 2007 Equity Incentive Plan, dated August 31, 2010**	10-Q	000-50216	10.79	November 12, 2010
10.6	Amendment No. 1 to the Amended and Restated 2007 Equity Incentive Plan**	10-K	000-50216	10.53	March 15, 2012
10.7	Amendment No. 2 to Amended and Restated 2007 Equity Incentive Plan, as amended**	8-K	000-54992	10.1	June 11, 2015
10.8	Amendment No. 3 to Amended and Restated 2007 Equity Incentive Plan, as amended**	8-K	000-54992	10.2	June 11, 2015
10.9	Amendment No. 4 to Amended and Restated 2007 Equity Incentive Plan, as amended**	8-K	000-54992	10.3	June 11, 2015

Exhibit No.	Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
10.10	Forms of agreements for use under the Amended and Restated 2007 Equity Incentive Plan, as amended**	10-K	000-54992	10.10	February 29, 2016
10.11	Amended and Restated 2010 Non-Management Compensation and Incentive Plan	10-K	000-50216	10.31	March 15, 2012
10.12	Forms of agreements for use under the Amended and Restated 2010 Non-Management Compensation and Incentive Plan, as amended*				
10.13	General Amendment of Company Plans as of August 6, 2013	10-Q	000-54992	10.64	November 12, 2013
10.14	Amended and Restated Refined Coal Activities Supplemental Compensation Plan for Employees, Contractors, and Consultants of ADA-ES, Inc. dated November 9, 2011**	10-K	000-50216	10.51	March 15, 2012
10.15	[Intentionally Omitted]				
10.16	Employment Agreement dated May 1, 1997 between C. Jean Bustard and ADA Environmental Solutions, LLC (assigned to ADA-ES, Inc.)**	10-KSB	000-50216	10.23	March 30, 2005
10.17	Amendment to Employment Agreement dated September 19, 2014 between C. Jean Bustard and ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.68	September 22, 2014
10.18	Employment Agreement dated May 1, 1997 between Michael D. Durham and ADA Environmental Solutions, LLC (assigned to ADA-ES, Inc.)**	10-KSB	000-50216	10.24	March 30, 2005
10.19	Form of Employment Agreement among each of Christine B. Amrhein (dated July 18, 2011), Jonathan R. Lagarenne (dated May 31, 2012), Graham O. Mattison (dated December 21, 2013), L. Heath Sampson (dated August 27, 2014) and Rachel A. Smith (dated January 31, 2014), ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	10-K	000-54992	10.19	February 29, 2016
10.20	Form of Amendment to Employment Agreement dated August 26, 2014 between each of Christine B. Amrhein, Michael D. Durham, Graham O. Mattison and Sharon M. Sjostrom and ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.67	September 2, 2014
10.21	Rider to Employment Agreement dated August 27, 2014 between Heath Sampson and ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.66	September 2, 2014
10.22	Form of Amendment to Employment Agreement dated September 19, 2014 between each of Jonathan R. Lagarenne and Rachel A. Smith and ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.69	September 22, 2014
10.23	Employment Agreement dated January 1, 2000 between Richard J. Schlager and ADA Environmental Solutions, LLC (assigned to ADA-ES, Inc.)**	10-KSB	000-50216	10.26	March 30, 2005
10.24	Employment Agreement dated January 2, 2000 between Mark H. McKinnies and ADA Environmental Solutions,	10-KSB	000-50216	10.25	March 30, 2005

	LLC (assigned to ADA-ES, Inc.)**				
10.25	Employment Agreement dated March 1, 2003 between Sharon M. Sjostrom and ADA Environmental Solutions, LLC (assigned to ADA-ES, Inc.)**	10-K	000-50216	10.34	March 27, 2007
10.26	Amendment to Employment Agreement dated August 26, 2014 between Sharon M. Sjostrom and ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.67	September 2, 2014
10.27	Employment Agreement dated November 28, 2005 between Richard Miller and ADA-ES, Inc.**	10-K	000-50216	10.39	March 14, 2008
10.28	Employment Agreement dated January 1, 2008 between Cameron E. Martin and ADA-ES, Inc.**	10-K	000-50216	10.43	March 14, 2008
10.29	Retirement and Non-Competition Agreement dated August 26, 2014 between Mark H. McKinnies and ADA-ES, Inc. and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.65	September 2, 2014
10.30	Severance Agreement dated April 30, 2015 between Michael D. Durham and Advanced Emissions Solutions, Inc.**	8-K	000-54992	10.1	May 6, 2015
10.31	Waiver and Release Agreement between Jonathan R. Lagarenne and Advanced Emissions Solutions, Inc.**	10-K	000-54992	10.31	February 29, 2016

Exhibit No.	Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
10.32	Purchase and Sale Agreement dated as of November 3, 2006 by and among ADA-ES, Inc., NexGen Refined Coal, LLC and Clean Coal Solutions, LLC (f/k/a ADA-NexCoal, LLC).	10-Q	000-50216	10.3	November 8, 2006
10.33	First Amendment to Purchase and Sale Agreement dated as of August 26, 2009 by and among ADA-ES, Inc., NexGen Refined Coal, LLC, and Clean Coal Solutions, LLC (f/k/a ADA-NexCoal, LLC)	10-K	000-50216	10.64	March 29, 2010
10.34	Second Amended and Restated Operating Agreement of Clean Coal Solutions, LLC dated May 27, 2011, by and among Clean Coal Solutions, LLC, ADA-ES, Inc., GSFS Investments I Corp. and NexGen Refined Coal, LLC***	10-Q/A	000-50216	10.33	September 28, 2011
10.35	The First Amendment to the Second Amended and Restated Operating Agreement of Clean Coal Solutions, LLC, by and among Clean Coal Solutions, LLC, ADA-ES, Inc., GSFS Investments I Corp. and NexGen Refined Coal, LLC dated September 9, 2011	10-Q	000-50216	10.89	November 14, 2011
10.36	Second Amendment to the Second Amended and Restated Operating Agreement of Clean Coal Solutions, LLC by and among ADA-ES, Inc., NexGen Refined Coal, LLC and GSFS Investments I Corp. dated July 31, 2012	10-Q	000-50216	10.59	November 9, 2012
10.37	Contribution Agreement dated May 27, 2011 between ADA-ES, Inc. and NexGen Refined Coal, LLC	10-Q	000-50216	10.87	August 12, 2011
10.38	Amended and Restated Limited Liability Company Operating Agreement by and between ADA-ES, Inc., NexGen Refined Coal, LLC and Clean Coal Solutions Services, LLC dated November 20, 2013	10-K	000-54992	10.38	February 29, 2016
10.39	Second Amended and Restated Limited Liability Company Agreement of RCM6, LLC, made and entered into as of April 1, 2015*	10-K	000-54992	10.39	February 29, 2016
10.40	Amended and Restated License Agreement between ADA-ES, Inc. and Clean Coal Solutions, LLC dated October 30, 2009	10-K	000-50216	10.77	August 16, 2010
10.41	First Amendment to the Amended and Restated License Agreement between ADA-ES, Inc. and Clean Coal Solutions, LLC dated as of August 4, 2010	10-Q	000-50216	10.81	March 28, 2011
10.42	Second Amendment to Amended and Restated License Agreement by and between ADA-ES, Inc. and Clean Coal Solutions, LLC dated as of July 23, 2013***	10-Q	000-54992	10.63	November 12, 2013
10.43	Technology Sublicense Agreement between ADA-ES, Inc., Clean Coal Solutions, LLC, and GS RC Investments LLC dated June 29, 2010	10-Q	000-50216	10.74	August 16, 2010
10.44	Amendment to Technology Sublicense Agreement between ADA-ES, Inc., GS RC Investments, LLC, and Clean Coal Solutions, LLC dated November 21,	10-K	000-54992	10.44	February 29, 2016

	2011***				
10.45	Amendment #2 to Technology Sublicense Agreement between ADE-ES, Inc, GS RC Investments, LLC, and Clean Coal Solutions, LLC dated December 15, 2011	10-K	000-50216	10.49	March 15, 2012
10.46	Exclusive Right to Lease Agreement dated May 27, 2011 between Clean Coal Solutions, LLC and GSFS Investments I Corp***	10-Q/A	000-50216	10.84	September 28, 2011
10.47	Class B Unit Purchase Agreement dated May 27, 2011 between Clean Coal Solutions, LLC and GSFS Investments I Corp	10-Q/A	000-50216	10.85	September 28, 2011
10.48	ADA-ES, Inc. Limited Guaranty for the benefit of GSFS Investments I Corp. dated May 27, 2011	10-Q	000-50216	10.86	August 12, 2011
10.49	ADA-ES, Inc. Limited Guaranty for the benefit of GS RC Investments LLC dated November 21, 2011	10-K	000-50216	10.44	March 15, 2012
10.50	ADA-ES, Inc. Limited Guaranty for the benefit of GS RC Investments LLC dated December 15, 2011	10-K	000-50216	10.5	March 15, 2012
10.51	Agreement to Lease between Clean Coal Solutions, LLC, AEC-NM, LLC, AEC-TH, LLC, and GS RC Investments LLC dated June 29, 2010	10-Q	000-50216	10.76	August 16, 2010

Exhibit No.	Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
10.52	Amendment to Agreement to Lease among Clean Coal Solutions, LLC, AEC-NM, LLC, AEC-TH, LLC, and GS RC Investments dated May 9, 2011	10-K	000-50216	10.47	March 18, 2013
10.53	Exchange Agreement between Clean Coal Solutions, LLC, AEC-NM, LLC, and GS RC Investments LLC dated November 21, 2011***	10-K	000-54992	10.53	February 29, 2016
10.54	Equipment Lease between AEC-NM, LLC, and GS RC Investments, LLC dated November 21, 2011***	10-K	000-54992	10.54	February 29, 2016
10.55	Exchange Agreement between Clean Coal Solutions, LLC, AEC-TH, LLC and GS RC Investments, LLC dated December 15, 2011***	10-K	000-54992	10.55	February 29, 2016
10.56	Equipment Lease between AEC-TH, LLC and GS RC Investments, LLC dated December 15, 2011***	10-K	000-54992	10.56	February 29, 2016
10.57	M-45 Technology License Agreement between ADA-ES, Inc. and Clean Coal Solutions, LLC dated July 27, 2012***	10-K	000-54992	10.57	February 29, 2016
10.58	Amended and Restated Equipment Lease by and between AEC-NM, LLC and GS RC Investments LLC, dated March 8, 2013***	10-K	000-54992	10.58	February 29, 2016
10.59	Amended and Restated Equipment Lease by and between AEC-TH, LLC and GS RC Investments LLC, dated March 8, 2013***	10-K	000-54992	10.59	February 29, 2016
10.60	Amendment to Exchange Agreement by and between Clean Coal Solutions, LLC, AEC-NM, LLC, and GS RC Investments LLC, dated March 8, 2013	10-Q	000-50216	10.57	May 10, 2013
10.61	Amendment to Exchange Agreement by and between Clean Coal Solutions, LLC, AEC-TH, LLC, and GS RC Investments LLC, dated March 8, 2013	10-Q	000-50216	10.58	May 10, 2013
10.62	Development and License Agreement with Arch Coal, Inc. dated June 25, 2010***	10-K	000-54992	10.62	February 29, 2016
10.63	US Department of Energy Cooperative Agreement No. DE-FE0004343 “Evaluation of Solid Sorbents as an Industrial Retrofit Technology for Carbon Dioxide Capture”, dated September 30, 2010	10-Q	000-50216	10.80	November 12, 2010
10.64	Office Building Lease between ADA-ES, Inc. and Ridgeline Technology Center, LLC, dated November 9, 2011	10-K	000-50216	10.46	March 15, 2012
10.65	Lease of Space between ADA, ES, Inc. and Highridgeline, LLC dated February 23, 2012	10-Q	000-50216	10.54	May 10, 2012
10.66	Undertaking and Assumption Agreement by and among Advanced Emissions Solutions, Inc., ADA-ES, Inc., and ADA Environmental Solutions, LLC dated as of July 1, 2013	10-Q	000-54992	10.62	November 12, 2013
10.67	Settlement Agreement by and among ADA-ES, Inc., ADA Environmental Solutions, LLC, Norit Americas, Inc. and Norit International N.V. f/k/a Norit N.V. dated August 29, 2011	10-Q	000-50216	10.88	November 14, 2011
10.68	Indemnity Settlement Agreement between ADA-ES, Inc., ADA Environmental Solutions, LLC and Energy Capital Partners, LLC, Energy Capital Partners I, LP, Energy Capital	10-K	000-50216	10.5	March 15, 2012

	Partners I-A, LP, Energy Capital Partners I-B IP, LP and Energy Capital Partners I (Crowfoot IP), LP and ADA Carbon Solutions, LLC (f/k/a Crowfoot Development, LLC), ADA Carbon Solutions (Red River), LLC (f/k/a Red River Environmental Products, LLC), Morton Environmental Products, LLC, Underwood Environmental Products, LLC, Crowfoot Supply Company, LLC, and Five Forks Mining, LLC dated November 28, 2011				
10.69	2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of September 19, 2013	10-K	000-54992	10.7	February 29, 2016
10.70	First Amendment and Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado as of December 2, 2013	10-K	000-54992	10.7	February 29, 2016

Exhibit No.	Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
10.71	Second Amendment to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of April 3, 2014	10-K	000-54992	10.71	February 29, 2016
10.72	Second Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of April 22, 2014	10-K	000-54992	10.72	February 29, 2016
10.73	Third Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of June 30, 2014	10-K	000-54992	10.73	February 29, 2016
10.74	Third Amendment and Fourth Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of September 20, 2014	10-K	000-54992	10.74	February 29, 2016
10.75	Fourth Amendment and Fifth Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of December 15, 2014	10-K	000-54992	10.75	February 29, 2016
10.76	Fifth Amendment and Sixth Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of May 29, 2015	10-K	000-54992	10.76	February 29, 2016
10.77	Sixth Amendment and Seventh Waiver to 2013 Loan and Security Agreement by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc., and CoBiz Bank d/b/a Colorado Business Bank in the State of Colorado dated as of September 30, 2015	10-K	000-54992	10.77	February 29, 2016
10.78	Credit Agreement, dated as of October 22, 2015, among Advanced Emissions Solutions, Inc., as borrower, Wilmington Trust, NA, as administrative agent and collateral agent, and the lenders party thereto*				
10.79	First Amendment to Credit Agreement, dated as of February 8, 2016, among Advanced Emissions Solutions, Inc., as borrower, the required lenders party thereto, and Wilmington Trust, National Association, as administrative agent*				
10.80	First Waiver to Credit Agreement by and among Advanced Emissions Solutions, Inc., as borrower, Wilmington Trust, NA, as administrative agent and collateral agent, and the lenders party thereto, dated March 2, 2016*				
10.81	Second Amendment to Exchange Agreement (New Madrid) dated February 26, 2016 between Clean Coal Solutions,				

	LLC, AEC-NM, LLC and GS RC Investments, LLC*					
10.82	Agreement dated as of March 16, 2015, by and between the Company and HG Vora Capital Management, LLC and HG Vora Special Opportunities Master Fund, Ltd.	8-K	000-54992	10.1		March 17, 2015
21.1	Subsidiaries of Advanced Emissions Solutions, Inc.*					
23.1	Consent of Hein & Associates LLP*					
31.1	Certification of Chief Executive Officer of Advanced Emissions Solutions, Inc. Pursuant to 17 CFR 240.13a-14(a) or 17 CFR 240.15d-14(a)*					
31.2	Certification of Chief Financial Officer of Advanced Emissions Solutions, Inc. Pursuant to 17 CFR 240.13a-14(a) or 17 CFR 240.15d-14(a)*					
32.1	Certification of Chief Executive Officer and Chief Financial Officer of Advanced Emissions Solutions, Inc. Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*					

Exhibit No.	Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
101	The following financial statements, formatted in XBRL: (i) Consolidated Balance Sheets as of December 31, 2015 and 2014, (ii) Consolidated Statements of Operations for the Years ended December 31, 2015, 2014 and 2013, (iii) Consolidated Statements of Changes in Stockholders’ Equity (Deficit) for the Years ended December 31, 2015, 2014 and 2013, (iv) Consolidated Statements of Cash Flows for the Years ended December 31, 2015, 2014 and 2013; and (v) Notes to the Consolidated Financial Statements. The information in Exhibit 101 is “furnished” and not “filed” as provided in Rule 401 of Regulation S-T.				

Notes:
* – Filed herewith.
** – Management contract or compensatory plan or arrangement.
*** – Portions of this exhibit have been omitted pursuant to a request for confidential treatment. The non-public information has been separately filed with the Securities and Exchange Commission.

Filings for the Company were made under the name ADA-ES, Inc. (File No. 000-50216) prior to July 1, 2013, the effective date of our reorganization, and under the name Advanced Emissions Solutions, Inc. (File No. 000-54992) starting on July 1, 2013.

(c) The following financial statements are included in this report pursuant to Regulation S-X Rule 3-09:
(1) Clean Coal Solutions, LLC and Subsidiaries;
a. Consolidated Financial Statements, December 31, 2015, 2014 and 2013 (With Independent Auditors' Report Thereon);
(2) Clean Coal Solutions Services, LLC;
a. Consolidated Financial Statements, December 31, 2015, 2014 (With Independent Auditors' Report Thereon) and 2013 (unaudited); and
(3) RCM6, LLC;
a. Financial Statements, December 31, 2015 and 2014 (With Independent Auditors' Report Thereon).

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS
As of December 31, 2015 and 2014
And for the Years Ended December 31, 2015, 2014 and 2013

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Members
Clean Coal Solutions, LLC

We have audited the accompanying consolidated balance sheets of Clean Coal Solutions, LLC and subsidiaries as of December 31, 2015 and 2014, and the related consolidated statements of operations, members' equity, and cash flows for each of the three years in the period ending December 31, 2015. 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 auditing standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides 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 Clean Coal Solutions, LLC and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows each of the three years in the period ending December 31, 2015, in conformity with U.S. generally accepted accounting principles.

/s/ Hein & Associates LLP

Denver, Colorado
April 12, 2016

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
As of December 31, 2015 and 2014

ASSETS

	2015	2014
CURRENT ASSETS		
Cash	$6,182,499	$3,869,672
Accounts receivable	16,860,883	4,015,780
Related party receivables	4,559,794	4,715,090
Inventory	10,167,068	9,494,605
Prepaid royalties	3,051,961	6,591,691
Deferred tax assets	238,900	—
Prepaid expenses and other assets	37,500	14,400
Total current assets	41,098,605	28,701,238
NON-CURRENT ASSETS		
Fixed assets, net	76,788,152	52,525,173
Deferred tax assets	—	397,134
Other assets, net	13,720,461	60,540
Total non-current assets	90,508,613	52,982,847
TOTAL ASSETS	$131,607,218	$81,684,085

The following table presents certain assets of the consolidated variable interest entities (VIEs), which are included in the Consolidated Balance Sheets above. The assets in the table below include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. Additionally, the assets in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation.

Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs

	December 31	
	2015	2014
ASSETS		
Cash	$3,365,878	$3,465,160
Accounts receivable	269,460	—
Inventory	8,604,382	8,100,602
Non-current assets	2,472,399	2,608,090
TOTAL ASSETS	$14,712,119	$14,173,852

Statement continues on the next page

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
As of December 31, 2015 and 2014

LIABILITIES AND MEMBERS' EQUITY		
	2015	2014
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	$21,951,570	$5,617,463
Related party payables	5,904,563	7,127,497
Deferred revenue - current	29,130,779	58,182,486
Line of credit	4,000,000	—
Total current liabilities	60,986,912	70,927,446
NON-CURRENT LIABILITIES		
Secured promissory note	7,535,347	7,001,092
Deferred revenue - long-term	798,402	14,924,530
Asset retirement obligation	1,078,807	811,539
Deferred tax liabilities	21,500	—
Total non-current liabilities	9,434,056	22,737,161
TOTAL LIABILITIES	70,420,968	93,664,607
TEMPORARY CLASS B PREFERRED EQUITY	30,448,574	45,521,621
OTHER MEMBERS' EQUITY (DEFICIT)		
Member's Deficit attributable to Class A members	25,174,921	(63,026,660)
Noncontrolling interests	5,562,755	5,524,517
Total other member's equity (deficit)	30,737,676	(57,502,143)
TOTAL LIABILITIES AND MEMBERS' EQUITY	$131,607,218	$81,684,085

The following table presents certain liabilities of consolidated VIEs, which are included in the Consolidated Balance Sheets above. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude intercompany amounts where creditors have recourse against the general credit of Clean Coal Solutions, LLC, however the secured note has a limited guarantee by Clean Coal Solutions, LLC.

Liabilities of consolidated VIEs for which creditors do not have recourse to the general credit of Clean Coal Solutions, LLC

	December 31	
	2015	2014
LIABILITIES		
Accounts payable and accrued liabilities	$1,488,984	$1,534,255
Secured promissory note	7,535,347	7,001,092
Non-current liabilities	113,883	103,173
TOTAL LIABILITIES	$9,138,214	$8,638,520

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
For the Years Ended December 31, 2015, 2014 and 2013

	2015	2014	2013
REVENUES			
Coal sales	$533,364,652	$412,448,738	$174,042,527
Rents	153,931,161	113,769,515	61,276,952
Other	8,200,670	7,032,260	6,926,028
Total revenues	695,496,483	533,250,513	242,245,507
COST OF SALES (exclusive of depreciation shown separately below)			
Coal purchases	533,465,745	412,448,719	174,042,527
Chemicals	23,270,893	15,237,970	9,321,327
Site and production fees	19,285,735	9,614,258	4,999,431
Royalties	11,058,412	6,850,862	2,941,517
Total cost of sales	587,080,785	444,151,809	191,304,802
GROSS PROFIT	108,415,698	89,098,704	50,940,705
OPERATING EXPENSES	10,585,574	7,190,484	5,351,997
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES	9,571,297	11,681,498	8,023,135
DEPRECIATION AND AMORTIZATON EXPENSE	3,247,999	2,629,860	4,086,360
Income from operations	85,010,828	67,596,862	33,479,213
OTHER (INCOME) AND EXPENSE			
State income tax expense	1,219,821	1,426,071	—
Other expense, net	822,900	369,943	275,276
Interest expense	159,942	34,244	251,616
Total other expense	2,202,663	1,830,258	526,892
NET INCOME	82,808,165	65,766,604	32,952,321
Class B Holders Preferred Return	(6,157,125)	(8,706,959)	(10,189,337)
Loss attributable to noncontrolling interests	10,674,776	11,023,382	—
NET INCOME (LOSS) AVAILABLE TO CLASS A MEMBERS	$87,325,816	$68,083,027	$22,762,984

The accompanying notes are an integral part of the consolidated financial statements

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CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF MEMBERS' EQUITY
Years Ended December 31, 2015, 2014 and 2013

		Other Members Equity (Deficit)		
	Temporary Class B Members	Class A Members	Noncontrolling Interest	Total Other Members' Equity (Deficit)
BALANCES, JANUARY 1, 2013	$75,770,324	$(65,331,191)	$ —	$(65,331,191)
Class B Holders Preferred Return	10,189,337	—	—	—
Member distributions	(4,875,000)	(27,625,000)	—	(27,625,000)
Reclassification of member equity	(18,013,740)	18,013,740	—	18,013,740
Net loss	—	22,762,984	—	22,762,984
BALANCES, DECEMBER 31, 2013	$63,070,921	$(52,179,467)	—	$(52,179,467)
Class B Holders Preferred Return	8,706,959	—	—	—
Member contributions	—	—	16,547,899	16,547,899
Member distributions	(15,382,563)	(89,803,916)	—	(89,803,916)
Reclassification of member equity	(10,873,696)	10,873,696	—	10,873,696
Net income	—	68,083,027	—	68,083,027
Net loss attributable to Noncontrolling interest	—	—	(11,023,382)	(11,023,382)
BALANCES, DECEMBER 31, 2014	$45,521,621	$(63,026,660)	5,524,517	$(57,502,143)
Class B Holders Preferred Return	6,157,125	—	—	—
Member contributions	—	—	10,713,014	10,713,014
Member distributions	(3,053,161)	(17,301,246)	—	(17,301,246)
Reclassification of member equity	(18,177,011)	18,177,011	—	18,177,011
Net income	—	87,325,816	—	87,325,816
Net loss attributable to Noncontrolling interest	—	—	(10,674,776)	(10,674,776)
BALANCES, DECEMBER 31, 2015	$30,448,574	$25,174,921	$ 5,562,755	$30,737,676

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWs
For the Years Ended December 31, 2015, 2014 and 2013

	2015	2014	2013
CASH, BEGINNING OF YEAR	$3,869,672	$11,663,307	$994,199
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income (loss) attributable to Class A Members	82,808,165	65,766,604	32,952,321
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	3,247,999	2,629,860	4,086,360
Loss on sale of assets	859,174	642,809	167,814
Amortization of prepaid royalties	3,539,730	2,135,605	764,916
Accretion of asset retirement obligation	94,258	150,660	146,693
Settlement of asset retirement obligation	(125,936)	(249,946)	(212,161)
Deferred taxes	179,734	(397,134)	—
Effects of changes in operating assets and liabilities:			
Accounts receivable	(12,845,103)	(2,246,733)	(1,288,615)
Related party receivables	424,756	(4,107,808)	2,186,797
Prepayment of royalties	—	—	(8,000,000)
Prepaid expenses and other assets	(13,688,323)	357,499	(300,180)
Inventory	(672,463)	(8,335,108)	(181,097)
Accounts payable and accrued liabilities	16,334,107	3,109,180	(1,493,797)
Related party payables	772,515	(3,106,864)	(3,228,833)
Customer deposits	—	—	(4,700,000)
Deferred revenue	(43,177,835)	27,284,374	27,822,642
Net cash provided by operating activities	37,750,778	83,632,998	48,722,860
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures for fixed assets	(30,061,353)	(9,789,143)	(2,553,752)
Net cash used in investing activities	(30,061,353)	(9,789,143)	(2,553,752)
CASH FLOWS FROM FINANCING ACTIVITIES			
Borrowings under secured promissory note	534,255	7,001,092	—
Borrowings under line of credit	4,000,000	—	—
Repayments under line of credit	—	—	(3,000,000)
Noncontrolling member contributions	10,713,014	13,911,841	—
Noncontrolling member contribution receivable	(269,460)		
Other Members' distributions	(20,354,407)	(102,550,423)	(32,500,000)
Net cash used in financing activities	(5,376,598)	(81,637,490)	(35,500,000)
NET (DECREASE) INCREASE IN CASH	2,312,827	(7,793,635)	10,669,108
CASH, END OF YEAR	6,182,499	3,869,672	11,663,307

	2015	2014	2013
SUPPLEMENTAL DISCLOSURE			
Cash paid for interest	$120,768	$35,937	$252,116
Cash paid for taxes	$1,023,877	$1,453,045	$22,157
NON-CASH TRANSACTIONS			
Capital expenditures included in current liabilities	$(1,995,449)	$4,121,762	$3,074,736
Asset retirement obligation recorded	$298,946	$252,710	$723,583
Non cash transfer of membership interest	$—	$2,636,056	$—
Capital lease of equipment	$—	$—	$21,278

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014 AND 2013

NOTE 1 - SIGNIFICANT ACCOUNTING POLICIES

Clean Coal Solutions, LLC (together with its subsidiaries "Clean Coal" or "the Company") operates and leases facilities used in the production of refined coal ("RC Facilities"). The production of refined coal via these RC Facilities qualifies for tax credits that are available under Section 45 of the Internal Revenue Code ("Production Tax Credits" or "PTCs"). The value of the PTC is adjusted annually based on inflation adjustment factors published in the Federal Register. The 2015, 2014 and 2013 PTC rates were $6.710, $6.601, and $6.590 per ton of refined coal produced, respectively.

Clean Coal is owned 42.5% by ADA-ES, Inc. ("ADA"), 42.5% by NexGen Refined Coal, LLC ("NexGen") (collectively, Class A Members), and 15% by GSFS Investments I Corp. ("GSFS" or the "Class B Member"). ADA, NexGen, and GSFS are collectively referred to herein as the "Members".

Clean Coal placed in service two RC Facilities prior to January 1, 2010 and 26 additional RC Facilities prior to January 1, 2012. Each RC Facility has demonstrated the required emission reductions from the production of refined coal to qualify for PTCs. The refined coal produced at these RC Facilities is burned at coal-fired generation stations and is expected to continue to qualify for PTCs for a period of ten years following the applicable placed in service date (expiring at certain dates in 2019 and 2021, respectively).

At December 31, 2015 and 2014, twelve RC Facilities were under lease with third parties who are entitled to the PTCs resulting from refined coal production. The leased RC Facilities are located at coal-fired generation stations throughout the United States.

Clean Coal also operates RC Facilities for the benefit of its Members, entitling them to the PTCs resulting from refined coal production. As of December 31, 2015 and December 31, 2014, respectively, two and five of the RC Facilities were producing refined coal and generating PTCs for the Members.

Clean Coal Solutions Services, LLC ("CCSS") was formed to operate and maintain the RC Facilities under respective operating and maintenance agreements. CCSS is owned 50% each by ADA and NexGen and is not consolidated with the accounts of Clean Coal. Lessees of RC Facilities, and Clean Coal for retained RC Facilities, pay CCSS, subject to certain limitations, a fee for procuring certain patented and proprietary chemical additives ("Chemicals") necessary for the production of refined coal, and for the operating and maintenance costs associated with the RC Facilities.

Basis of Presentation

The accompanying consolidated financial statements are presented in accordance with accounting principles generally accepted in the United States ("GAAP"). The accompanying consolidated financial statements include the accounts of the Company and one VIE for which Clean Coal is the primary beneficiary. An entity is referred to as a VIE if it meets the criteria outlined in ASC 810 - Consolidation, which are: (i) the entity has equity that is insufficient to permit the entity to finance its activities without additional subordinated financial support from other parties; or (ii) the entity has equity investors that cannot make significant decisions about the entity's operations or that do not absorb their proportionate share of the entity's expected losses or expected returns.

The Company consolidates a VIE when it has both the power to direct the activities that most significantly impact the VIE's economic performance and a right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE (i.e., it is the primary beneficiary). All intercompany balances and transactions have been eliminated in consolidation. Certain reclassifications have been made to the prior period to conform to the

current year presentation. The reclassifications did not impact net income.

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014 AND 2013

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Ultimate realization of assets and settlement of liabilities in the future could differ from those estimates.

During the fourth quarter of 2013, the Company reevaluated the estimated useful life of its RC Facilities. As a result of the maturity of the underlying technology and the expressed desire from certain generation customers (“Generators”) to maintain use of the equipment beyond the PTC period, the Company determined that the estimated useful life of the RC Facilities should be increased from 10 to 20 years. The Company accounted for the change in the useful life of the RC Facilities as a change in an accounting estimate beginning October 1, 2013.

Cash

The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. The carrying value approximates fair value due to the short-term nature of these instruments. The Company maintains its cash in accounts with a financial institution. These accounts at times may exceed federally insured limits. The Company has not experienced any losses in these accounts. The Company believes it is not exposed to any significant credit risk related to cash.

Accounts Receivable

Accounts receivable consist primarily of lease payments due from lessees of the RC Facilities. The carrying amount of accounts receivable may be reduced by a valuation allowance that reflects management's best estimate of amounts that will not be collected. Under the Company’s lease agreements, interest can accrue on delinquent balances. No interest on delinquent balances was recorded for the years ended December 31, 2015, 2014 and 2013, respectively. Any allowance for doubtful accounts is based on management’s assessment of the collectability of specific customer accounts and the aging of the accounts receivable. If there is a deterioration of a major customer’s credit worthiness or actual defaults are higher than the historical experience, management’s estimates of the recoverability of amounts due the Company could be adversely affected. As of December 31, 2015 and 2014, no allowance for doubtful accounts was considered necessary.

Inventory

Inventory is comprised primarily of feedstock coal and Chemicals used in the production of refined coal at RC Facilities owned and operated by Clean Coal. Inventory is valued at average cost.

Prepaid Royalties

In November 2011, Clean Coal entered into an exclusive technology license agreement with ADA to use M-45™ technology for producing refined coal which entitles ADA to certain royalty payments. The Company made prepaid royalty payments totaling $10.0 million to ADA, according to the terms of the M-45™ technology license agreement. Prepaid royalty payments will be applied to future royalties due to ADA. See Note 10 for further discussion of the

future royalty payment commitments.

Fixed Assets

Fixed assets are stated at historical cost. Expenditures for major renewals and improvements are capitalized, while maintenance and repair costs that do not significantly improve the related asset or extend its useful life are charged to expense as incurred. For financial reporting purposes, depreciation is calculated using the straight-line method over the estimated useful lives of the assets ranging from 3 to 20 years. Depreciation expense was $3,242,697, $2,624,558 and $4,081,058 for the years ended December 31, 2015, 2014 and 2013, respectively.

The Company records a liability for asset retirement obligations ("ARO") equal to the fair value of the estimated cost to retire an RC Facility. The ARO liability is initially recorded in the period in which the obligation meets the definition of a liability, which is generally when a RC Facility is installed at a generation station. The ARO liability is estimated by the Company based on legal removal requirements and using anticipated future inflation rates. When the liability is initially recorded, the Company increases the carrying amount of the related long-lived asset by an amount equal to the original liability. The liability is increased over time to reflect the change in its present value, and the capitalized cost is depreciated over the useful life of the related long-lived asset. The ARO liability is removed when the Company is relieved of its removal obligation due to either completion of the removal activities at a generation station or a transfer of the responsibility for the RC Facility removal to a third party. The Company reevaluates the adequacy of its recorded ARO liability at least annually. Actual costs of asset retirements such as removing the RC Facility from a generation station and related site restoration are charged against the related liability. Any difference between costs incurred upon settlement of an ARO and the recorded liability is recognized as a gain or loss in the Company's earnings.

Intangible Assets

Clean Coal has two exclusive licenses from ADA for the patented and proprietary "CyClean™" and "M-45™" technologies related to the production of refined coal. The patents underlying the CyClean™ technology license expire beginning in 2021; however, the license agreement includes potential future patents related to the technology. The costs associated with the exclusive CyClean™ license are included in Other Assets and are being amortized over the useful economic life of the technology, or approximately 14 years, using the straight-line method. Amortization expense was $5,302 for each of the years ended December 31, 2015, 2014 and 2013.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of carrying amount or fair value less costs to sell. At December 31, 2015 and 2014, there were no such impairments.

Revenue Recognition

Lease Revenue

Lease revenue is recognized based on the earning of payments under the terms of the respective RC Facilities' lease agreements. Depending on the lease agreement, the Company may receive fixed lease payments or a combination of fixed and contingent lease payments. Contingent lease payments are

determined periodically based on the actual amount of refined coal production during such period. Prepaid lease payments are received upon execution of certain lease agreements and are recorded as deferred revenue. Deferred revenue is amortized into revenue in accordance with the amortization period of the respective lease agreement.

Coal Sales

In connection with the operation of RC Facilities by the Company, the Company purchases and takes title to feedstock coal under purchase agreements with each respective Generator or other supplier of feedstock coal. The Company purchases the Chemicals from third party vendors and applies them to the feedstock coal to produce refined coal in its RC Facilities. In order to qualify for PTCs the refined coal must be sold to an unrelated third party that uses the refined coal to generate electricity. The refined coal is sold by the Company, under refined coal sale agreements, to a Generator or to another third party at the Company’s discretion as permitted under the applicable Generator agreements. The Company performs refined coal recertification or redetermination testing periodically as required by Section 45 with respect to production at each of its RC Facilities. During the years ended December 31, 2015, 2014 and 2013 the Company sold all of its refined coal and back-up coal (coal untreated but part of the refined coal process) to third parties that used the coal to generate electricity, and recorded such amounts as coal sales.

Income Taxes

The Company, with the consent of its Members, has elected to be taxed under applicable sections of federal and state income tax law as a limited liability company treated as a partnership for income tax purposes. As a result of this election, no federal income taxes are incurred by the Company. Instead, the Members are liable for income taxes on their pro rata share of the Company's income, deductions, losses, and credits.

In certain states, the Company is taxed based upon shareholder equity or other enterprise considerations. In these instances the Company records and pays the applicable tax directly to the state agency. Deferred income taxes are provided for temporary differences arising from differences between the financial statement amount and tax basis of assets and liabilities existing at each balance sheet date, using enacted tax rates anticipated to be in effect when the related taxes are expected to be paid. A valuation allowance is established if it is more likely than not that a deferred tax asset will not be realized. The Company includes interest and penalties related to state tax as a component of income tax expense. As of December 31, 2015, the Company’s tax years of 2012 through 2014 are subject to examination by the applicable taxing authorities.

The Company applies the Financial Accounting Standards Board’s (“FASB”) requirements related to accounting for uncertain tax positions. During the years ended December 31, 2015, 2014 and 2013, the Company has concluded that there are no significant uncertain tax positions that would require recognition or disclosure in the financial statements. As of December 31, 2015 and 2014, respectively, the Company made no provision for interest or penalties related to uncertain positions.

Reclassifications

Certain reclassifications have been made to the prior years' financial statements to conform to the current year presentation. These reclassifications had no effect on previously reported results of operations or members' equity.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update (“ASU”) 2014-09, Revenue from Contracts with Customers. As amended by ASU No. 2015-14, the ASU is effective for public companies for annual

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014 AND 2013

reporting periods beginning after December 15, 2017 and is effective for private companies for annual reporting periods beginning after December 15, 2018 and is to be applied using one of two acceptable methods. The Company has not yet determined the impact that ASU 2014-09 may have on its consolidated financial statements.

The FASB issued Accounting Standards Update No. 2015-02, Consolidation - Amendments to the Consolidation Analysis, during the first quarter of 2015. Once effective, the ASU will apply to the consolidation assessment of all entities. The standard is effective for reporting entities with fiscal periods beginning after December 15, 2015. The Company has assessed the impact of the ASU on its consolidation analysis and has determined that the consolidation conclusions will not differ from the Company's current consolidation methodology.

The FASB issued Accounting Standards Update No. 2015-17 - Income Taxes. Currently, deferred tax liabilities and assets that are not related to an asset or liability for financial reporting are classified according to the expected reversal date of the temporary difference. To simplify the presentation of deferred income taxes, the amendments in this ASU require that deferred income tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The standard is effective for public reporting entities with fiscal periods beginning after December 15, 2016 and may be applied prospectively or retrospectively to all periods presented. The Company anticipates adopting the standard retrospectively commencing with the year ended December 31, 2016.

In February 2016, the FASB issued ASU 2016-02 Leases (Topic 842) which is intended to increase transparency and comparability of accounting for lease transactions. The ASU will require all leases to be recognized on the balance sheet as lease assets and lease liabilities. Lessor accounting remains similar to the current model, but is updated to align with certain changes to the lessee model (e.g., certain definitions, such as initial direct costs, have been updated) and the new revenue recognition standard. Lease classifications by lessors are similar; operating, direct financing, or sales-type. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. Classification will be based on criteria that are largely similar to those applied in current lease accounting, but without explicit thresholds. The ASU will require both quantitative and qualitative disclosures regarding key information about leasing arrangements.

The standard is effective for the Company for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will
require application of the new guidance at the beginning of the earliest comparative period presented. Management is currently evaluating the effect of this ASU on its financial statements and disclosures.

NOTE 2 - FIXED ASSETS

Refined Coal Facilities

Refined coal production facilities and their related components represent the 28 RC Facilities that were placed in service by the Company in 2009 and 2011, and have demonstrated the qualified emissions reductions to qualify for PTCs. RC Facilities are stated at historical cost. Depreciation is calculated using the straight-line method over a 20 year period.

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
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Under the site license agreements between Clean Coal and the Generators, Clean Coal may be required to return the site upon which the RC Facility ("Site") is located at a generation station to its original condition at the end of the applicable PTC period. In instances where the applicable agreements place this responsibility on the Company, the Company has recorded a liability for an ARO equal to the fair value of the estimated cost to retire the RC Facility and return each Site to its original condition. The ARO liability was estimated by the Company using estimated and historic facility removal costs and anticipated future inflation rates. This estimated future value was discounted to its present value using the Company's credit-adjusted risk-free rate. The Company increased the carrying amount of the RC Facilities asset group and recorded the liability in the fourth quarter of 2013. The carrying value of the asset is depreciated on a straight-line basis over the remaining estimated life of the RC Facility asset group. The liability is increased over time to reflect the change in its present value, and the capitalized cost is depreciated over the useful life of the site license. In subsequent periods, the Company is required to make adjustments to AROs based on changes in the estimated fair values of the obligations. Corresponding increases in asset book values are depreciated over the remaining useful life of the related site license. Uncertainties as to the probability, timing, or amount of cash flows associated with AROs may affect management's estimates of fair value. For the year ended December 31, 2015, 2014, and 2013, the Company recorded $94,258, $150,660 and $146,693 of accretion expense, respectively.

The following table describes changes to the Company's ARO liability for the years ended December 31, 2015 and 2014:

	2015	2014
Beginning balance	$811,539	$658,115
Liabilities incurred	298,946	252,710
Accretion	94,258	150,660
Settlement of obligations	(125,936)	(249,946)
Ending balance	$1,078,807	$811,539

Site Infrastructure and Improvements

Site infrastructure and improvements consists of Site improvements, modular structures and other structural Site specific components installed at various RC Facility locations. These assets are recorded at historical cost and are depreciated using the straight-line method over estimated useful lives of 9 to 20 years.

Furniture, Fixtures and Equipment

Furniture, fixtures, and equipment is comprised of office furniture and fixtures and office equipment, including those under capital lease. These assets are recorded at cost and depreciated using the straight-line method with estimated useful lives ranging from 3 to 20 years.

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
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The following table summarizes the components of gross and net carrying amounts for fixed assets as of December 31:

	2015	2014
RC Facilities and related equipment	$88,506,687	$61,369,172
Site infrastructure and improvements	3,432,936	2,878,203
Furniture, fixtures and equipment	986,437	1,001,939
Other	526,725	769,863
	93,452,785	66,019,177
Accumulated Depreciation	(16,664,633)	(13,494,004)
Fixed Assets, Net	$76,788,152	$52,525,173

NOTE 3 – INVENTORY

Inventory is comprised primarily of feedstock coal and Chemicals used in the production of refined coal at RC Facilities owned and operated by Clean Coal. Inventory is valued at average cost. The Company assesses the inventory valuation on a monthly basis and reduces the value for any obsolete inventory. No valuation allowance was considered necessary as of December 31, 2015 and 2014.

	2015	2014
Feedstock coal	$9,813,679	$8,992,246
Chemicals	353,389	502,359
Total	$10,167,068	$9,494,605

NOTE 4 – LEASING ACTIVITIES

The Company has entered into several types of transaction structures with third party refined coal investors. Each of the agreements contains terms such that the payments received are recognized by the Company as operating lease revenues as they are earned. Payments under the agreements may be described as fixed and contingent rents, member interest purchase payments, or asset purchase payments, depending on the particular transaction structure.

Ten and nine of the RC Facilities leased to third parties are under lease with a related party as of December 31, 2015 and 2014, respectively. These leases generally have terms that extend to the date on which the RC Facility would no longer be eligible to produce PTCs (10 years from the placed in service date), subject to earlier termination by the lessee at periodic intervals or upon the occurrence of specified events.

During 2013, $16.5 million of deposits received in 2011 were applied as prepaid rent amounts associated with certain RC Facility leases. The initial deposits of prepaid rents along with any additional prepayments received were recorded as deferred revenue and are amortized into revenue under the straight-line method over the amortization period defined in the respective lease agreement. As of December 31, 2015 and 2014, the Company has recorded $29.9 million and $73.1 million, respectively, of deferred revenue related to rents.

The Company entered into an RC Facility lease with an unrelated third party in 2012 that was amended in

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014 AND 2013

2013 to a fixed payment arrangement that expired January 31, 2014. During 2014, the lease was renewed through January 31, 2015. This agreement was terminated effective December 31, 2014. The Company has continued to operate the RC Facility for the benefit of its Members.

An RC Facility Asset Purchase Agreement was entered into with a third party ("Purchaser") in February 2013. Under this agreement, Clean Coal received prepaid rents from the Purchaser which are being amortized and recognized as lease revenue over a 36 month term. This agreement provides for both fixed and contingent lease payments. As part of the agreements a Put-Call Agreement was entered into which grants the Purchaser the option to put the RC Facility back to Clean Coal under certain circumstances. In October 2015 Clean Coal was notified of the Purchaser's intent to put the RC Facility back to Clean Coal effective in April 2016. As a result of the put, no additional gain or loss will be recognized and all previously recognized revenues will not be impacted.

In February 2014, the Company sold 99.8% of the member interests of one of its subsidiaries, RCM6, LLC ("RCM6"). RCM6 owns a single RC Facility. A portion (49.9%) of the member interests was purchased by parties related to or controlled by ADA, NexGen, and Republic Financial Corporation ("Republic"). The remaining 49.9% was sold to an unrelated third party. The sale of the member interests in RCM6 was under identical terms relative to their proportionate interests for all purchasers. However, based upon the criteria set forth in ASC 810 - Consolidation, the Company has determined that it is the primary beneficiary in a VIE for the years ended December 31, 2015 and 2014, respectively. As such, the financial results of RCM6 are required to be consolidated with the results of the Company and are presented as "Noncontrolling Interests" within the consolidated financial statements (see Note 5).

Under the RCM6 Member Interest Purchase Agreements ("MIPA"), the Company received prepayments at closing which are to be amortized through the first quarter of 2017. The agreement calls for additional fixed and contingent payments to be made quarterly by the members of RCM6 through 2021. These payments are recorded as leasing revenues in the Company's financial statements.

Simultaneously with the sale of the member interests, RCM6 entered into agreements for the purchase of feedstock coal, the sale of refined coal, the provision of coal yard services and site licenses (the "Agreements") with a Generator. These Agreements are required for the on-going production of refined coal by RCM6 at its current location. Under these Agreements, the Company also entered into a guarantee agreement whereby Clean Coal guaranteed, on behalf of RCM6, $15.0 million of its obligations under the Agreements ("Guarantee Agreement"), including payment obligations and obligations to indemnify the Generator. The Guarantee Agreement expires six years after the expiration of the Agreements.

Future minimum RC Facility lease revenues do not include contingent lease amounts which are based on the levels of refined coal production. The following is a schedule of annually renewable fixed lease payments to be paid by lessees to the Company through December 31, 2021, assuming no modifications of leases, non-renewals or early lease terminations:

2016	$99,981,271
2017	119,862,177
2018	123,422,637
2019	119,196,821
2020	118,926,080
Thereafter	77,168,134
Total	$658,557,120

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CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
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NOTE 5 – Variable Interest Entity

RCM6, LLC -

RCM6 was created as a refined coal production company. RCM6's operations include the purchase of feedstock coal from a Generator, application of Chemicals utilizing its RC Facility, and the subsequent sale of refined coal to the Generator.

Based upon the criteria set forth in ASC 810 - Consolidation, the Company has determined that it is the primary beneficiary in a VIE for the years ended December 31, 2015 and 2014. The Company, through its 100% owned subsidiary CCS-AE, LLC ("CCS-AE" or "Manager"), holds a 0.2% member interest in RCM6, is the manager of RCM6, and directs the activities that are considered most significant to the entity. As such, the financial results of RCM6 are consolidated with the results of the Company and are presented as "Noncontrolling Interests" within the consolidated financial statements.

Creditors of RCM6 have no recourse against the general credit of the Company (outside of its member interest or specific guarantees), and the assets of the Company are not collateral for any RCM6 obligations. RCM6 is financed through capital calls of its members in proportion to their member interests. In the event that a member defaults on a capital call request made by the Manager of RCM6, the Manager may (i) withhold distributions payable to the defaulting member or sue for the amount due and/or (ii) elect to transfer the defaulting member's interest to a separate legal entity controlled by the Manager.

Under the provisions of the Amended and Restated Limited Liability Company Agreement of RCM6, LLC, the operations of RCM6 will terminate on December 31, 2022 unless terminated earlier by unanimous written consent of the members or upon written election of members holding 40% or more of the membership interests upon the termination of the refined coal sales agreement between the Generator and RCM6.

Effective in January 2016 the RCM6 Limited Liability Agreement ("LLC Agreement") was amended. Under the amended LLC Agreement certain additional capital call limitations were added, requiring RCM6 to be limited to calling capital if certain operational costs are exceeded.

Additionally in March 2016, one of the members of RCM6 purchased the interests held by two of the other members. The member purchase transaction did not impact the consolidation of the VIE or the consolidated financial statements of the Company.

NOTE 6 - NOTES PAYABLE

Line of Credit -

In December 2013, the Company entered into a Revolving Credit and Security Agreement ("2013 Revolver") for $5.0 million with Colorado Business Bank (CBB). The 2013 Revolver, as amended in December 2014, matures on December 31, 2016. Interest is payable at maturity and is accrued at the greater of 5.00% per annum or the bank's prime rate plus 1.00%. In June 2015, the 2013 Revolver was amended and restated to increase the size of the facility to $20.0 million. The interest rate was modified to be the greater of 5.50% or the bank's prime rate plus 1.00%. The maturity date was modified to be June 2016. The 2013 Revolver is collateralized by the assets of the Company and the

equity interests and proceeds related to such equity interests of each material subsidiary owned by the Company. The Revolver is also collateralized by the Company's deposit accounts held at CBB. These accounts are not restricted by the Revolver.

In 2014, two of the Company's subsidiaries entered into an Irrevocable Letter of Credit in the amount of $500,000 each in connection with a performance obligation under an operating agreement. The Letters of Credit are held under the 2013 Revolver and expire in June 2016, unless terminated earlier. One of the Irrevocable Letters of Credit was terminated in 2015.

Clean Coal is required to be in compliance with certain loan covenants under the Company's debt agreements. As of December 31, 2015 and 2014, the Company was in compliance with the respective loan covenants.

Secured promissory note -

On February 10, 2014, RCM6, a VIE consolidated into the consolidated financial statements of the Company, entered into an $11.0 million secured promissory note (the "Note") with a Generator from which it purchases feedstock coal, and to which it sells refined and unrefined coal on a monthly basis. The purpose of the Note is to finance the monthly purchases of feedstock coal from the Generator. The amount of principal and interest owed is dependent upon the amount of feedstock coal purchased and refined coal sold between the two parties and is net settled on a monthly basis. The Note is collateralized by RCM6's feedstock coal inventory.

The Note bears interest at a per annum rate equal to the short-term applicable federal rate announced by the IRS in December of each year. The interest rate for the years ended December 31, 2015 and 2014 was 0.34% and 0.25% per annum, respectively. Interest is payable quarterly in arrears.

All outstanding amounts owed under the Note are due and payable on the earlier of December 31, 2021 or the termination or expiration of the Feedstock Coal Purchase Agreement between RCM6 and the Generator.

As of December 31, 2015 and 2014, respectively, the outstanding balance on the Note was $7,535,347 and $7,001,092 with interest payable of $6,261 and $4,213.

NOTE 7 - MEMBERS' EQUITY

Under the Class B unit purchase agreement with GSFS, which was entered into upon the amendment and restatement of the Clean Coal Operating Agreement in 2011, ADA and NexGen each entered into a limited guarantee agreement under which the parties are obligated to guarantee performance by Clean Coal of its obligations to indemnify GSFS against certain losses it may suffer as a result of inaccuracies or breach in representations and covenants related to the Class B unit purchase agreement or RC Facilities lease agreements with GSFS affiliates. ADA and NexGen entered into a contribution agreement where, in the event of such a breach, they have agreed to contribute their pro rata share of any amounts under the limited guarantee.

The Class B units are considered conditionally redeemable. As specified in the Second Amended and Restated Operating Agreement and the Class B unit purchase agreement, on or after the earlier of (i) a breach of any material provision of the Class B unit purchase agreement or Clean Coal's organizational documents that is not cured and that results in damages to GSFS of at least $10.0 million and (ii) the 10 year anniversary of the date the last RC Facility owned by Clean Coal was placed in service but in no event later than December 31, 2021, and if GSFS' unrecovered investment balance in its Class B units has not been reduced to zero, GSFS may require its Class B units to be redeemed for an amount equal to its unrecovered investment balance. No triggering redemption events have occurred as of December 31, 2015 and 2014, respectively. GSFS' Class B units include a guaranteed 15% annual return

calculated monthly based upon the outstanding balance as of that date less any distributions of cash or PTCs, commencing

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CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014 AND 2013

with the first cash distribution date of March 2013.

The U.S. Securities and Exchange Commission (the "SEC") requires conditionally redeemable equity to be classified outside of permanent equity. Because the financial statements of the Company are
expected to be furnished to the SEC as part of a filing by one of the Company's Members, the conditionally redeemable amount has been reclassified out of permanent equity and into temporary equity in these consolidated financial statements. Additionally, the income and member equity attributable to the Class B members has been reclassified and is separately presented in the consolidated financial statements.

Additionally, GSFS has certain preferences over Class A Members as to liquidation proceeds and profit distribution. GSFS Class B units have no further capital call requirements and have limited voting rights.

The Company had the following classes and percentages of member units issued and outstanding at December 31, 2015 and 2014:

Class A Units (voting)	85%
Class B Units (non-voting)	15%

NOTE 8 - INCOME TAXES

For the years ended December 31, 2015 and 2014, state income tax expense, consisted of the following:

	2015	2014
Current	$880,930	$1,823,205
Deferred	338,891	(397,134)
Total income tax expense	$1,219,821	$1,426,071

No state income tax expense was recorded during the year ended December 31, 2013.

The following represents the approximate tax effect of each significant type of temporary differences and classification of net deferred income taxes as of December 31, 2015:

	Current	Long-Term	Total
Deferred tax assets	$238,900	$1,200	$240,100
Deferred tax liabilities	—	(22,700)	(22,700)
Net deferred income taxes	$238,900	$(21,500)	$217,400

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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The following represents the approximate tax effect of each significant type of temporary differences and classification of net deferred income taxes as of December 31, 2014:

	Current	Long-Term	Total
Deferred tax assets	$ —	$411,172	$411,172
Deferred tax liabilities	—	(14,038)	(14,038)
Net deferred income taxes	$ —	$397,134	$397,134

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Short term and long-term deferred tax assets are principally related to timing differences associated with deferred revenue for the years ending December 31, 2015 and 2014. Long term deferred tax liabilities are related to deferred revenue and depreciation for the years ending December 31, 2015 and 2014. No valuation allowance was established as it is more likely than not that the deferred tax asset will be realized. Additionally, no liability related to uncertain tax positions was recorded at December 31, 2015 and 2014.

NOTE 9 - RELATED PARTY TRANSACTIONS

During 2015, 2014, and 2013, the Company incurred expenses and capital expenditures and had amounts payable (excluding capital distributions) to the following related party entities:

	ADA	CCSS	GSFS affiliates	NexGen and affiliates
	(a)	(b)	(c)	(d)
Payable at December 31, 2015	$1,917,909	$3,953,200	$1,625	$29,130
Payable at December 31, 2014	1,437,805	5,611,816	4,496	55,334
Receivable at December 31, 2015	$1,528,679	$—	$1,771,900	$1,259,219
Receivable at December 31, 2014	919,952	20,645	2,854,543	919,952
Revenues recognized during the year ended				
December 31, 2015	$3,270,915	$—	$132,510,475	$3,270,915
December 31, 2014	3,163,703	—	84,665,664	3,163,703
December 31, 2013	—	—	48,307,048	—
Expenses incurred during the year ended				
December 31, 2015	$10,643,450	$12,643,256	$31,412	$564,310
December 31, 2014	6,828,623	8,745,952	—	875,896
December 31, 2013	3,143,733	6,057,300	—	960,609

(a) ADA costs include expenditures for royalties and labor costs related to capital improvements and other operational and engineering services. Revenues relate to RCF lease revenues recognized.
(b) CCSS costs include operating expenses and the reimbursement of capital expenditures associated with the installation of various RCFs.

(c) GSFS affiliate costs include Chemical expenses at certain RC Facilities and deposits plus interest. Revenues relate to RCF lease revenues recognized.
(d) NexGen and affiliate costs include management fees, rent and labor costs.

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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The Company acquires substantial amounts of fixed assets from CCSS. For the years ended December 31, 2015, 2014 and 2013, the Company acquired $28,168,076, $13,272,636 and $5,018,247, respectively of capital assets from its related party CCSS.

NOTE 10 – COMMITMENTS

Purchase Commitments -

On November 3, 2011, Clean Coal entered into a technology licensing agreement with ADA whereby Clean Coal agreed to pay ADA royalties based on a percentage of operating income from refined coal production at RC Facilities that utilize the M-45™ technology to produce PTCs. The licensing agreement required a prepayment of $10.0 million upon the achievement of certain milestones. As of December 31, 2012, all the milestones had been substantially achieved. Clean Coal paid $2.0 million to ADA in 2011, and the remaining $8.0 million plus accrued interest of $189,452 in March 2013. These prepaid royalties will be applied to future royalties due to ADA, in lieu of cash payment, in the proportion of 66.67% cash payment and 33.33% to the reduction of the prepaid royalty balance. During the years ended December 31, 2015, 2014 and 2013, respectively, the Company recognized $3,539,730, $2,135,605 and $764,916 of the royalty prepayments and included such amounts in royalty expense under cost of sales.

In December 2015 the Company was assigned by CCSS a Master Supply Agreement with a Chemical vendor. Under the agreement the Company has a commitment commencing January 1, 2015 for minimum purchase quantities of the specified Chemical that if not achieved require a shortfall payment amount (“Shortfall”) to be paid to the vendor on a monthly basis. Any Shortfall payment required will be applied to future chemical purchases once certain minimum volume levels are achieved. Each renewal term of one year also requires minimum purchase volumes and Shortfall payments that decline over time. As of December 31, 2015, the Company has paid $13,675,224 under the Master Supply Agreement and has recorded these amounts as long-term Other Assets on the consolidated balance sheet.

Subsequent to December 31, 2015, the Company paid an additional $2,272,777 under the Master Supply Agreement and amended the terms to reduce future minimum purchase requirements until the current Shortfall payment amount is substantially utilized.

401k Profit Sharing Plan and Other Benefits -

The Company offers a defined contribution and profit sharing plan (the “Plan”) to employees who are over 18 years of age and have been employed by the Company for more than 30 days. Employees can deposit up to 80 percent of their eligible pay up to the statutory limit in the Plan. The Company contributes 3.0% of employees’ eligible pay to the Plan. Company contributions charged to benefits expense were $89,796, $164,785 and $55,975 for the years ended December 31, 2015, 2014 and 2013, respectively.

Office Lease -

During 2012, the Company entered into a sub-lease agreement for office space. The lease agreement was with Republic, an entity related to NexGen. The term of the lease was 8½ years. Rent expense for the years ended December 31, 2014 and 2013 was $16,342 and $88,659, respectively.

In March 2014, the Company terminated the sub-lease with Republic and entered into an eight year lease agreement for office space directly with the landlord. Rent expense under the new lease for the year ended December 31, 2015 and 2014 was $202,953 and $157,762, respectively.

CLEAN COAL SOLUTIONS, LLC AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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Future minimum lease payments under lease agreements through December 31, 2022 are as follows:

2016	$189,376
2017	196,178
2018	203,224
2019	206,523
2020	213,943
Thereafter	450,147
Total	$1,459,391

NOTE 11 – CONCENTRATIONS

The Company’s operations are currently dependent upon a limited number of third parties leasing RC Facilities. Further, under the terms of the lease agreements, the leases may be subject to termination by the lessee at periodic intervals or upon the occurrence of specified events which include amendments to Section 45 of the Internal Revenue Code. The termination of all or a material portion of these leases would have a significant adverse impact on the Company’s future operations and financial condition.

Additionally, for the RC Facilities operated by Clean Coal, the production of refined coal is generally dependent upon the plant operations of specific generating stations. Production at these locations could be impacted by the demand for electricity, the amount of coal burned as compared to other electricity generation alternatives utilized by the utility to produce electricity, disruptions due to foreseen or unforeseen plant outages, and changes in government regulations related to electricity generation or coal burning activities.

The Chemicals utilized by the Company to produce refined coal are available from a limited number of vendors in the United States. The Company's future operations may be materially and adversely affected if the Company encounters difficulty procuring these Chemicals, the quality of available Chemicals deteriorates, or there are significant price increases for the Chemicals.

NOTE 12 - SUBSEQUENT EVENTS

Management evaluated subsequent events through April 12, 2016, the date the financial statements were available to be issued.

CLEAN COAL SOLUTIONS SERVICES, LLC

CONSOLIDATED FINANCIAL STATEMENTS
As of December 31, 2015 and 2014
And for the Years Ended December 31, 2015, 2014 and 2013 (Unaudited)

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Members
Clean Coal Solutions Services, LLC

We have audited the accompanying consolidated balance sheets of Clean Coal Solutions Services, LLC and subsidiaries as of December 31, 2015 and 2014, and the related consolidated statements of operations, members' equity, and cash flows for the years then ended. 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 auditing standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides 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 Clean Coal Solutions Services, LLC and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

/s/ Hein & Associates LLP

Denver, Colorado
April 12, 2016

CLEAN COAL SOLUTIONS SERVICES, LLC
CONSOLIDATED BALANCE SHEETS
As of December 31, 2015 and 2014
(in thousands)

ASSETS

	2015	2014
CURRENT ASSETS		
Cash	$4,413	$8,854
Accounts receivable	77,475	102,068
Related party receivables	3,631	5,581
Inventory	73,354	54,254
Prepaid expenses	28,086	45,186
Total current assets	186,959	215,943
NON-CURRENT ASSETS		
Fixed assets, net	3,692	2,652
Other assets	12	9,972
Total non-current assets	3,704	12,624
TOTAL ASSETS	$190,663	$228,567

The following table presents certain assets of the consolidated variable interest entities ("VIEs"), which are included in the Consolidated Balance Sheets above. The assets in the table below include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. Additionally, the assets in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation.

Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs

	December 31	
	2015	2014
Cash	$3,859	$7,685
Accounts receivable	74,061	101,448
Related party receivables	—	5
Inventory	73,353	54,254
Prepaid expenses	27,748	44,651
Non-current assets	722	10,680
TOTAL ASSETS	$179,743	$218,723

Statement continues on the next page

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS SERVICES, LLC
CONSOLIDATED BALANCE SHEETS
As of December 31, 2014 and 2013 (Unaudited)
(in thousands)

LIABILITIES AND MEMBERS' EQUITY

	2015	2014
CURRENT LIABILITIES		
Accounts payable	$83,396	$122,708
Related party payables	3,497	30
Accrued liabilities	5,783	5,120
Total current liabilities	92,676	127,858
NON-CURRENT LIABILITIES	1,365	1,214
TOTAL LIABILITIES	94,041	129,072
MEMBERS' EQUITY		
Members' equity	7,935	8,298
Noncontrolling interests	88,687	91,197
TOTAL MEMBERS' EQUITY	96,622	99,495
TOTAL LIABILITIES AND MEMBERS' EQUITY	$190,663	$228,567

The following table presents certain liabilities of consolidated VIEs, which are included in the Consolidated Balance Sheets above. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude intercompany amounts where creditors have recourse against the general credit of Clean Coal Solutions, LLC.

Liabilities of consolidated VIEs for which creditors do not have recourse to the general credit of Clean Coal Solutions Services, LLC

	December 31	
	2015	2014
LIABILITIES		
Accounts payable and accrued liabilities	$89,791	$123,879
Non-current liabilities	1,266	1,039
TOTAL LIABILITIES	$91,057	$124,918

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS SERVICES, LLC
CONSOLIDATED STATEMENTS OF OPERATIONS
For the Years Ended December 31, 2015, 2014 and 2013 (Unaudited)
(in thousands)

	2015	2014	Unaudited 2013
REVENUES			
Coal sales	$1,019,259	$640,596	$329,955
Service revenue	14,246	11,800	9,555
Total revenues	1,033,505	652,396	339,510
COST OF SALES (exclusive of depreciation shown separately below)			
Coal purchases	1,019,066	640,549	329,877
Chemicals	12,059	7,625	4,629
Site, production and related fees	44,876	26,390	16,059
Total cost of sales	1,076,001	674,564	350,565
GROSS PROFIT (LOSS)	(42,496)	(22,168)	(11,055)
OPERATING EXPENSE			
Facility, office and infrastructure	133,968	83,979	48,467
Labor costs	12,536	9,586	6,065
Other costs	9,090	4,606	5,601
Total operating expense	155,594	98,171	60,133
SELLING, GENERAL AND ADMINISTRATIVE EXPENSE	5,426	4,234	2,838
DEPRECIATION EXPENSE	436	352	276
Loss from operations	(203,952)	(124,925)	(74,302)
OTHER EXPENSE			
Other expense	101	22	5
Interest expense, net	17	40	129
Total other expense	118	62	134
NET LOSS	(204,070)	(124,987)	(74,436)
Loss attributable to noncontrolling interests	213,746	132,237	77,814
NET INCOME ATTRIBUTABLE TO CCSS MEMBERS	$9,676	$7,250	$3,378

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS SERVICES, LLC
CONSOLIDATED STATEMENTS OF MEMBERS' EQUITY
As of December 31, 2014 and 2013 (Unaudited)
(in thousands)

	Members	Noncontrolling Interest	Total
BALANCES, JANUARY 1, 2013 (unaudited)	$ 2,699	$ 21,271	$ 23,970
Noncontrolling member contributions (unaudited)		408,509	408,509
Noncontrolling member distributions (unaudited)		(297,272)	(297,272)
Member distributions (unaudited)	(10)	—	(10)
Net income (unaudited)	3,378	—	3,378
Net loss attributable to noncontrolling interest (unaudited)	—	(77,813)	(77,813)
BALANCES, DECEMBER 31, 2013 (unaudited)	6,067	54,695	60,762
Noncontrolling member contributions	—	803,102	803,102
Noncontrolling member distributions	—	(634,363)	(634,363)
Member distributions	(5,019)	—	(5,019)
Net income	7,250	—	7,250
Net loss attributable to noncontrolling interest	—	(132,237)	(132,237)
BALANCES, DECEMBER 31, 2014	8,298	91,197	99,495
Noncontrolling member contributions	—	1,270,834	1,270,834
Noncontrolling member distributions	—	(1,059,598)	(1,059,598)
Member distributions	(10,039)	—	(10,039)
Net income	9,676	—	9,676
Net loss attributable to noncontrolling interest	—	(213,746)	(213,746)
BALANCES, DECEMBER 31, 2015	$ 7,935	$ 88,687	$ 96,622

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS SERVICES, LLC
CONSOLIDATED STATEMENTS OF CASH FLOW
For the Years Ended December 31, 2015, 2014 and 2013 (Unaudited)
(in thousands)

	2015	2014	Unaudited 2013
CASH, BEGINNING OF YEAR	$ 8,854	$ 2,651	$ 348
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	(204,070)	(124,987)	(74,436)
Adjustments to reconcile net income to net cash (used in) provided by operating activities:			
Depreciation	436	352	275
Accretion of asset retirement obligation	97	162	—
Effects of changes in operating assets and liabilities:			
Accounts receivable	24,593	(54,680)	(19,959)
Related party receivables	873	51	69
Inventory	(19,100)	(26,263)	(4,531)
Prepaid expenses and other assets	27,060	(28,499)	(26,519)
Accounts payable and accrued liabilities	(37,572)	78,547	17,248
Related party payables	3,467	(677)	707
Net cash used in operating activities	(204,216)	(155,994)	(107,146)
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures for fixed assets	(34,514)	(15,603)	(4,383)
Proceeds from fixed assets billed	33,167	14,261	4,090
Net cash used in investing activities	(1,347)	(1,342)	(293)
CASH FLOWS FROM FINANCING ACTIVITIES			
Repayments under line of credit	—	—	(1,000)
Repayments under notes payable	(75)	(181)	(486)
Distributions paid to members	(10,039)	(5,019)	(10)
Noncontrolling member contributions	1,270,834	803,102	408,509
Noncontrolling member distributions	(1,059,598)	(634,363)	(297,272)
Net cash provided by financing activities	201,122	163,539	109,741
NET INCREASE IN CASH	(4,441)	6,203	2,303
CASH, END OF YEAR	$ 4,413	$ 8,854	$ 2,651
SUPPLEMENTAL DISCLOSURE			
Cash paid for interest	$ 19	$ 44	$ 130
Cash paid for taxes	73	16	2
NON-CASH TRANSACTIONS			
Capital expenditures included in current liabilities	$ (1,077)	$ 116	$ 1,856
Capital expenditures included in related party receivables	(1,077)	116	1,856
Asset retirement obligation recorded	129	877	—

The accompanying notes are an integral part of the consolidated financial statements

CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

NOTE 1 - SIGNIFICANT ACCOUNTING POLICIES

Clean Coal Solutions Services, LLC ("CCSS" or "the Company") operates and maintains refined coal production facilities ("RC Facilities") and procures certain chemical additives ("Chemicals") used in the production of refined coal. The production of refined coal via these RC Facilities qualifies for tax credits that are available under Section 45 of the Internal Revenue Code ("Production Tax Credits" or "PTCs").

CCSS is owned 50% by ADA-ES, Inc. ("ADA") and 50% by NexGen Refined Coal, LLC ("NexGen"). ADA and NexGen are collectively referred to herein as the "Members".

Basis of Presentation

The accompanying consolidated financial statements are presented in accordance with accounting principles generally accepted in the United States ("GAAP"). The accompanying consolidated financial statements include the accounts of the Company and certain VIEs which are wholly owned by certain lessees of RC Facilities for which the Company is the primary beneficiary. An entity is referred to as a VIE if it meets the criteria outlined in ASC 810 - Consolidation, which are: (i) the entity has equity that is insufficient to permit the entity to finance its activities without additional subordinated financial support from other parties; or (ii) the entity has equity investors that cannot make significant decisions about the entity's operations or that do not absorb their proportionate share of the entity's expected losses or expected returns.

The Company consolidates a VIE when it has both the power to direct the activities that most significantly impact the VIE's economic performance and a right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE (i.e., it is the primary beneficiary). See note 5 for additional information regarding consolidated VIEs.

All intercompany balances and transactions have been eliminated in consolidation, including the intercompany balances and transactions with consolidated VIEs.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Ultimate realization of assets and settlement of liabilities in the future could differ from those estimates.

All intercompany balances and transactions have been eliminated in consolidation. Certain reclassifications have been made to the prior period to conform to the current year presentation. The reclassifications did not impact net income.

Cash

The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. The carrying value approximates fair value due to the short-term nature of these instruments. The

Company maintains its cash in accounts with various financial institutions. These accounts at times may exceed federally insured limits. The Company has not experienced any losses in these accounts. The Company believes it is not exposed to any significant credit risk related to cash.

CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

Accounts Receivable

Accounts receivable are presented net of an allowance for doubtful accounts that reflects management's best estimate of amounts that will not be collected. Under the Company’s operating agreements interest can accrue on delinquent balances. No interest on delinquent balances was recorded for the years ended December 31, 2015, 2014, and 2013, respectively. Any allowance for doubtful accounts is based on management’s assessment of the collectability of specific customer accounts and the aging of the accounts receivable. As of December 31, 2015 and 2014, no allowance for doubtful accounts was considered necessary.

Inventory

Inventory is comprised primarily of feedstock coal and Chemicals used in the production of refined coal at RC Facilities that are leased and operated by the VIEs. Inventory is valued at average cost.

Prepaid Expenses

Prepaid expenses include prepaid insurance which is amortized over the policy term. Prepaid expenses also include prepaid lease payments related to the RC Facilities. As of December 31, 2015 and 2014, prepaid lease payments were $27,748 and $44,651 respectively.

Fixed Assets

Fixed assets are stated at historical cost net of depreciation. Expenditures for major renewals and improvements are capitalized, while maintenance and repair costs that do not significantly improve the related asset or extend its useful life are charged to expense as incurred. The Company purchases certain fixed assets on behalf of VIEs, certain related parties and other entities for which the Company is reimbursed at cost and consequently these assets are reflected at the net remaining value of zero. For financial reporting purposes, depreciation is calculated using the straight-line method over the estimated useful lives of the assets ranging from 3 to 10 years.

Impairment of Long-Lived Assets

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 was no evidence of impairment for the years ended December 31, 2015 and 2014.

Revenue Recognition

Coal Sales

In connection with the operation of the leased RC Facilities by the VIEs, coal revenue is recognized upon delivery of refined coal and back-up coal (coal untreated but part of the refined coal process) to the utility and when the respective utility assumes the risk and rewards of ownership. During the years ended December 31, 2015, 2014, and 2013, the VIEs sold all of their refined coal and back-up coal to third parties that utilized the coal to generate electricity, and recorded such amounts as coal sales. See Note 5 for additional information regarding consolidated VIEs.

Services Revenue

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CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

The Company is the contract operations and maintenance service provider and Chemical purchasing agent for RC Facilities. As such, the Company is responsible for the management of personnel and operations at each RC Facility, the purchase and application of Chemicals, and all repair and maintenance to the RC Facility. Revenue is recognized for services as they are performed.

Income Taxes

The Company, with the consent of its Members, has elected to be taxed under applicable sections of federal and state income tax law as a limited liability company treated as a partnership for income tax purposes. As a result of this election, no federal income taxes are incurred by the Company. Instead, the Members are liable for income taxes on their pro rata share of the Company's income, deductions, losses, and credits.

In certain states, the Company is taxed based upon shareholder equity or other enterprise considerations. In those instances the Company records and pays the applicable tax directly to the state agency. Deferred income tax asset or liabilities are provided for temporary differences arising from differences between the financial statement amount and tax basis of assets and liabilities existing at each balance sheet date, using enacted tax rates anticipated to be in effect when the related taxes are expected to be paid. A valuation allowance is established if it is more likely than not that a deferred tax asset will not be realized. No deferred taxes have been recorded as of December 31, 2015 and 2014, respectively. The Company includes interest and penalties related to state tax as a component of income tax expense. As of December 31, 2015, the Company’s tax years of 2012 through 2014 are subject to examination by the applicable taxing authorities.

The Company applies the Financial Accounting Standards Board’s (“FASB”) requirements related to accounting for uncertain tax positions. During the years ended December 31, 2015, 2014 and 2013, the Company has concluded that there are no significant uncertain tax positions that would require recognition or disclosure in the financial statements. As of December 31, 2015 and 2014, respectively, the Company made no provision for interest or penalties related to uncertain positions.

Reclassifications

Certain reclassifications have been made to the prior years’ financial statements to conform to the current year presentation. These reclassifications had no effect on previously reported results of operations or members equity.

New Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, Revenue from Contracts with Customers. As amended by ASU 2015-14, the ASU is effective for public companies for annual reporting periods beginning after December 15, 2017 and is effective for private companies for annual reporting periods beginning after December 15, 2018 and is to be applied using one of two acceptable methods. The Company has not yet determined the impact that ASU 2014-09 may have on its consolidated financial statements.

The FASB issued ASU No. 2015-02, Consolidation - Amendments to the Consolidation Analysis (Topic 810), during the first quarter of 2015. Once effective, the ASU will apply to the consolidation assessment of all entities. The standard is effective for reporting entities in fiscal periods beginning after December 15, 2016. The Company does not

expect the adoption of the new guidance to impact the Company’s consolidation policies or the consolidated financial statements as presented.

During 2015, the FASB issued Accounting Standards Update No. 2015-17 - Income Taxes. Currently, deferred tax liabilities and assets that are not related to an asset or liability for financial reporting are

CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

classified according to the expected reversal date of the temporary difference. To simplify the presentation of deferred income taxes, the amendments in this ASU require that deferred income tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The standard is effective for public reporting entities with fiscal periods beginning after December 15, 2016 and may be applied prospectively or retrospectively to all periods presented. The Company anticipates adopting the standard retrospectively commencing with the year ended December 31, 2016.

In February 2016, the FASB issued ASU 2016-02 Leases (Topic 842) which is intended to increase transparency and comparability of accounting for lease transactions. The ASU will require all leases to be recognized on the balance sheet as lease assets and lease liabilities. Lessor accounting remains similar to the current model, but is updated to align with certain changes to the lessee model (e.g., certain definitions, such as initial direct costs, have been updated) and the new revenue recognition standard. Lease classifications by lessors are similar; operating, direct financing, or sales-type. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. Classification will be based on criteria that are largely similar to those applied in current lease accounting, but without explicit thresholds. The ASU will require both quantitative and qualitative disclosures regarding key information about leasing arrangements.

The standard is effective for the Company for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will
require application of the new guidance at the beginning of the earliest comparative period presented. Management is currently evaluating the effect of this ASU on its financial statements and disclosures.

NOTE 2 - INVENTORY

Inventory consists primarily of feedstock coal and Chemicals used in the production of refined coal at RC Facilities leased by VIEs and operated by the Company. Inventory is valued at average cost. The Company assesses the inventory valuation on a monthly basis and reduces the value for any obsolete inventory. No valuation allowance was considered necessary as of December 31, 2015 and 2014. Inventory consisted of the following at December 31, 2015 and 2014:

	2015	2014
Feedstock coal inventory	$72,444	$53,373
Chemicals	910	881
	$73,354	$54,254

NOTE 3 - FIXED ASSETS

Fixed assets are comprised of utility vehicles, facility spare parts, office furniture and fixtures, office equipment, and asset retirement obligations ("ARO"). The following table summarizes the components of gross and net carrying

amounts for fixed assets as of December 31, 2014 and 2013:

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CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

	2015	2014
Utility vehicles	$1,698	$1,638
Office equipment	369	235
Asset retirement obligations	999	877
Spare parts for RC Facilities	1,680	554
Other	29	23
	4,775	3,327
Accumulated depreciation	(1,083)	(675)
Fixed assets, net	$3,692	$2,652

Depreciation expense was $436, $352 and $276 for the years ended December 31, 2015, 2014 and 2013, respectively.

Under the site license agreements between the Company and the Generators, the Company may be required to return the site upon which the RC Facility ("Site") is located at a generation station to its original condition at the end of the applicable PTC period. In instances where the applicable agreements place this responsibility on the VIEs, the VIEs have recorded a liability for an ARO equal to the fair value of the estimated cost to retire the RC Facility and return each Site to its original condition. The ARO liability was estimated by the Company using estimated and historic facility removal costs and anticipated future inflation rates. This estimated future value was discounted to its present value using the Company's credit-adjusted risk-free rate. The carrying value of the asset is depreciated on a straight-line basis over the remaining estimated life of the RC Facility asset group. The liability is increased over time to reflect the change in its present value, and the capitalized cost is depreciated over the useful life of the site license. In subsequent periods, the Company is required to make adjustments to AROs based on changes in the estimated fair values of the obligations. Corresponding increases in asset book values are depreciated over the remaining useful life of the related site license. Uncertainties as to the probability, timing, or amount of cash flows associated with AROs may affect management's estimates of fair value. For the year ended December 31, 2015, 2014, and 2013, the Company recorded $97, $162 and $0 of accretion expense, respectively.

The following table describes changes to the Company's ARO liability for the year ended December 31, 2015 and 2014:

	2015	2014
Beginning balance	$1,039	$—
Liabilities incurred	129	877
Accretion	97	162
Ending balance	$1,265	$1,039

NOTE 4 - NOTES PAYABLE

During September 2013, the Company entered into a $5 million revolving line of credit agreement (the "Revolver") with Colorado Business Bank ("CBB"). The purpose of the Revolver is to provide financing for the general working capital needs of the Company. Borrowings under the line of credit bear interest at the higher of 5% per annum or the prime rate (as defined in the agreement) plus 1%. The facility is collateralized by all assets of the Company, the deposit accounts and insurance owned by the Company. These accounts are not restricted by the Revolver. The agreement includes two separate indemnity contingent commitment

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CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

amounts of $2 million each related to two RC Facilities should any damages to the generation station boilers occur. At December 31, 2015 and 2014, there was no amount drawn on the Revolver. The Revolver matures in June 2016.

CCSS is required to be in compliance with certain loan covenants under the Revolver. As of December 31, 2015 and 2014, the Company was in compliance with the respective covenants.

NOTE 5 - VARIABLE INTEREST ENTITIES

Based upon the criteria set forth in ASC 810, the Company has determined for the periods ending December 31, 2015 and 2014, that it was the primary beneficiary in seven and five VIEs, respectively. The Company has determined it is the primary beneficiary because it has the obligation to absorb losses in excess of budgeted amounts as well as the power to direct the activities that are considered most significant to the entities. Thus, the Company’s consolidated financial statements include the assets, liabilities and results of operations of the VIEs for which it has determined it is the primary beneficiary, even though the Company has no ownership interest in the VIEs. The operations of the VIEs are included in the consolidated financial statements as Noncontrolling Interests. Creditors of the VIEs have no recourse against the general credit of CCSS and the assets of CCSS are not collateral for any VIE obligations.

All of the VIEs lease RC Facilities with the purpose of producing refined coal to generate tax credits that are available under Section 45 of the Internal Revenue Code. Each entity’s operations include leasing an RC facility located and operated at a coal-fired generation station (“Station”), the purchase of feedstock coal from the Station owner (“Generator”), application of Chemicals to the coal feedstock to produce refined coal, and the subsequent sale of the refined coal back to the Generator. Included in the Consolidated Statement of Operations were losses related to the VIEs of $213,746, $132,237 and $77,814 for the years ended December 31, 2015, 2014, and 2013, respectively.

NOTE 6 - RELATED PARTY TRANSACTIONS

CCS -

The Company operates and maintains RC Facilities for Clean Coal Solutions, LLC (“CCS”), which is an affiliated company through common ownership of the Members and is not consolidated with the accounts of the Company. CCS develops, operates and leases RC Facilities. CCS pays the Company, subject to certain limitations, a fee for procuring Chemicals necessary for the production of refined coal, and for the operating and maintenance costs associated with the RC Facilities it owns.

The Company had $3,953 and $5,612 in related party receivables for operational costs from CCS at December 31, 2015 and 2014, respectively. The amount payable to CCS by VIEs of the Company at December 31, 2015 was $0 and $21, respectively.

The Company also recognized revenues from CCS in the amount of $12,643, $8,746 and $6,057 for the years ended December 31, 2015, 2014 and 2013, respectively.

ADA -

During 2015, 2014, and 2013, excluding capital distributions, the Company incurred expenses related to labor costs and engineering services provided by ADA in the amount of $96, $309 and $437, respectively.

CLEAN COAL SOLUTIONS SERVICES, LLC
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2015, 2014, and 2013
(Information as of and for the year ended December 31, 2013 is unaudited)
(in thousands)

NexGen -

During the years ended December 31, 2015, 2014 and 2013, the Company incurred certain technology costs payable to NexGen in the amounts of $0, $4 and $6, respectively.

NOTE 7 - COMMITMENTS

401k Profit Sharing Plan and Other Benefits -

The Company offers a defined contribution and profit sharing plan to employees who are over 18 and have been employed by the Company for more than 30 days. Employees can deposit up to 80 percent of their eligible pay up to the statutory limit in the plan. The Company contributes 3% of employee's eligible pay to the plan. Company contributions charged to benefits expense were $396, $265 and $197 for the years ended December 31, 2015, 2014 and 2013, respectively.

Office Lease -

The Company leases a 7,761 square foot office building located in the city of Town and Country, Missouri. The lease expires in 2022 with certain annual escalation rates. Rent expense for the years ended December 31, 2015, 2014 and 2013 was $149, $149 and $138, respectively. The lease was amended in 2015 to add additional square footage effective September 2016.

Future minimum lease payments under the Company's office lease agreements, including the amendment, at December 31, 2015, consisted of the following:

2016	$169
2017	205
2018	210
2019	215
2020	219
Thereafter	376
Total	$1,394

RC Facility Leases -

RC Facility leases entered into by the VIEs payable to CCS are generally operating leases with a one year term with certain annual renewal rights which require total annual payments ranging from $68.5 million to $114.9 million through 2021.

NOTE 8 - CONCENTRATIONS

The Company's operations are currently dependent upon a limited number of customers for which the Company operates RC Facilities. Further, under the terms of the Operating Agreements with the Company, the agreements may

be terminated if the respective RC Facility lease agreement terminates. The leases may also be subject to termination by the lessee at periodic intervals or upon occurrence of specified events which include amendments to Section 45 of the Internal Revenue Code. The termination of all or a material portion of these leases would have a significant adverse impact on the Company's future operations and

financial condition.

Additionally, the production of refined coal by an RC Facility is generally dependent upon the operations of the Station where the RC Facility is located. Production at specific RC Facilities could be impacted by the regional demand for electricity, the price and availability of competing fuels such as natural gas, disruptions due to foreseen or unforeseen Station outages, and changes in government regulations related to electricity generation or coal burning activities.

Some of the Chemicals utilized by the Company to produce refined coal are available from a limited number of vendors in the United States. The Company's future operations may be materially and adversely affected if the Company encounters difficulty procuring these Chemicals, the quality of available Chemicals deteriorates, or there are significant price increases for these Chemicals.

At December 31, 2015, 46.7% of the Company’s workforce was covered by collective bargaining agreements and none of the collective bargaining agreements will expire within one year.

NOTE 9 - SUBSEQUENT EVENTS

Management evaluated subsequent events through April 12, 2016, the date the financial statements were available to be issued.

RCM6, LLC
FINANCIAL STATEMENTS
As of and for the Year Ended
December 31, 2015 and
For the period February 10, 2014 to December 31, 2014

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INDEPENDENT AUDITOR’S REPORT

To the Members
RCM6, LLC
Greenwood Village, Colorado

Report on the Financial Statements
We have audited the accompanying financial statements of RCM6, LLC (the “Company”) which comprise the balance sheets as of December 31, 2015 and 2014, and the related statements of operations, members’ equity and cash flows for the year ended December 31, 2015 and for the period from February 10, 2014 to December 31, 2014 and the related notes to the financial statements.

Management’s Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor’s Responsibility
Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Members
RCM6, LLC

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of RCM6, LLC as of December 31, 2015 and 2014, and the results of its operations and its cash flows for the year ended December 31, 2015 and for the period from February 10, 2014 to December 31, 2014 in accordance with accounting principles generally accepted in the United States of America.

Hein & Associates LLP

Denver, Colorado
April 12, 2016

RCM6, LLC
BALANCE SHEET
As of December 31, 2015 and 2014

	2015	2014
CURRENT ASSETS		
Cash	$3,365,878	$3,465,160
Related party receivables	269,460	—
Inventory, net	8,604,382	8,100,602
Total current assets	12,239,720	11,565,762
FIXED ASSETS, NET	2,472,399	2,608,090
TOTAL ASSETS	14,712,119	14,173,852
CURRENT LIABILITIES		
Accounts payable	$488,296	$421,908
Related party payables	396,163	684,294
Accrued site production fees	478,926	365,349
Accrued taxes and interest	125,599	62,704
Total current liabilities	1,488,984	1,534,255
Secured promissory note	7,535,347	7,001,092
Asset retirement obligation	113,883	103,173
Total liabilities	9,138,214	8,638,520
MEMBERS' EQUITY	5,573,905	5,535,332
TOTAL LIABILITIES AND MEMBERS' EQUITY	$14,712,119	$14,173,852

The accompanying notes are an integral part of the financial statements

RCM6, LLC
STATEMENTS OF OPERATIONS
For the Year December 31, 2015
For the Period from February 10, 2014 through December 31, 2014

	2015	February 10, 2014 - December 31, 2014
REVENUES		
Refined coal sales	119,368,536	128,954,620
Unrefined coal sales	1,484,728	2,129,743
Total revenues	120,853,264	131,084,363
COST OF SALES (exclusive of depreciation shown separately below)		
Coal purchases	120,853,264	131,084,363
Chemicals	4,111,025	4,226,709
Site, production, and related fees	3,765,689	4,029,909
Total cost of sales	128,729,978	139,340,981
GROSS LOSS	(7,876,714)	(8,256,618)
OPERATING EXPENSES	1,574,684	1,518,982
MANAGEMENT FEES	443,054	468,010
DEPRECIATION EXPENSE	160,221	136,426
Loss from operations	(10,054,673)	(10,380,036)
OTHER EXPENSE		
State taxes	617,095	652,625
Interest expense	24,399	13,067
Total other expense	641,494	665,692
NET LOSS	$(10,696,167)	$(11,045,728)

The accompanying notes are an integral part of the financial statements

RCM6, LLC
STATEMENTS OF MEMBERS' EQUITY
For the Year Ended December 31, 2015
For the Period From February 10, 2014 through December 31, 2014

Beginning Balance at February 10, 2014	$2,641,339
Capital Contributions	13,939,721
Net Loss	(11,045,728)
Members' Equity at December 31, 2014	5,535,332
Capital Contributions	10,734,740
Net Loss	(10,696,167)
Members' Equity at December 31, 2015	$5,573,905

The accompanying notes are an integral part of the financial statements

RCM6, LLC
STATEMENTS OF CASH FLOWS
For the Year Ended December 31, 2015
For the Period From February 10, 2014 through December 31, 2014

	2015	February 10, 2014 - December 31, 2014
CASH, BEGINNING	$3,465,160	$—
CASH FLOWS FROM OPERATING ACTIVITIES		
Net loss	(10,696,167)	(11,045,728)
Adjustments to reconcile net income to net cash used in operating activities:		
Depreciation	160,221	136,426
Accretion of asset retirement obligation	10,710	7,366
Effects of changes in operating assets and liabilities:		
Inventory	(503,780)	(8,013,169)
Accounts payable and accrued liabilities	(45,271)	1,544,742
Net cash used in operating activities	(11,074,287)	(17,370,363)
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of fixed assets	(24,530)	(105,290)
Net cash used in investing activities	(24,530)	(105,290)
CASH FLOWS FROM FINANCING ACTIVITIES		
Borrowings, net of repayments, under secured promissory note	534,255	7,001,092
Capital contributions receivable	(269,460)	—
Capital contributions	10,734,740	13,939,721
Net cash provided by financing activities	10,999,535	20,940,813
NET INCREASE IN CASH	(99,282)	3,465,160
CASH, ENDING	$3,365,878	$3,465,160
NON CASH ACTIVITIES:		
Membership purchase of existing assets	$—	$2,641,339
Asset retirement obligation	$—	$95,807
INTEREST PAID	$22,352	$8,854

The accompanying notes are an integral part of the financial statements

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RCM6, LLC
NOTES TO FINANCIAL STATEMENTS
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NOTE 1 – SIGNIFICANT ACCOUNTING POLICIES

RCM6, LLC (“the Company”) produces refined coal at its refined coal production facility (“Facility”) which qualifies for production tax credits that are available under Section 45 of the Internal Revenue Code (“Production Tax Credits” or “PTCs”). The Internal Revenue Service (“IRS”) has issued guidance regarding emissions reductions from refined coal used in the generation of steam including measurement and certification criteria necessary to qualify for the Section 45 PTCs. The value of the Section 45 PTC is adjusted annually based on inflation adjustment factors published in the Federal Register in April of each calendar year. The 2015 and 2014 tax credit rates were $6.710 and $6.601 per ton of refined coal, respectively.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Ultimate realization of assets and settlement of liabilities in the future could differ from those estimates.

Cash

The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. The carrying value approximates fair value due to the short-term nature of these instruments. The Company maintains its cash in accounts with a local financial institution. These accounts at times may exceed federally insured limits. The Company has not experienced any losses in these accounts and believes it is not exposed to any significant credit risk related to cash and cash equivalents.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of carrying amount or fair value less costs to sell. At December 31, 2015 and 2014 there was no such impairment.

Revenue Recognition

In connection with the operation of the Facility, the Company purchases feedstock coal from which it produces refined coal. The refined coal and any unrefined coal (coal untreated by the refined coal production process) is then sold to the owner of the electric utility (the “Generator”) that utilizes the refined and any unrefined coal to generate steam to produce electricity. During the years ended December 31, 2015 and 2014, the Company sold both refined coal and unrefined coal to the Generator and recorded such amounts as coal sales. Revenue is recognized for refined coal and unrefined coal upon delivery and when the Generator assumes the risk and rewards of ownership.

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RCM6, LLC
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Income Taxes

The Company, with the consent of its members, has elected to be taxed under applicable sections of federal and state income tax law as a limited liability company treated as a partnership for federal income tax purposes. As a result of this election, no federal income taxes are incurred by the Company. Instead, the members are liable for income taxes on their pro rata share of the Company's income, deductions, losses and credits.

The Company applies the Financial Accounting Standards Board’s requirements related to accounting for uncertain tax positions. The Company determined that it was not required to record a liability related to uncertain tax positions. The 2015 and 2014 tax years are the only periods open for examination.

The Company is subject to business and occupational taxes (“B&O taxes”) assessed in states based upon the Company’s gross receipts. The Company has filed all B&O tax returns and paid the corresponding tax liabilities related to the B&O taxes for the year ended December 31, 2015 and period February 10, 2014 to December 31, 2014.

Limited Life

Under the provisions of the Amended and Restated Limited Liability Company Agreement of RCM6, LLC, the operations of the Company will terminate on December 31, 2022 unless terminated earlier by unanimous written consent of the members or upon written election of members holding 40% or more of the membership interests upon the termination of the refined coal sales agreement between the Generator and the Company.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update (“ASU”) 2014-09, Revenue from Contracts with Customers. For private companies the ASU, as amended by ASU No. 2015-14, is effective for annual reporting periods beginning after December 15, 2018 and is to be applied using one of two acceptable methods. The Company has not yet determined the impact that ASU 2014-09 may have on its financial statements.

ASU No. 2014-15, Presentation of Financial Statements-Going Concern was issued in August 2014 and is effective for the annual period ending after December 15, 2016. ASU 2014-15 requires management to evaluate whether there are conditions, in the aggregate that raise substantial doubt about an entity’s ability to continue as a going concern within one year of the date financial statements are issued. Despite the significant losses generated by the Company, management does not believe there are conditions that exist that indicate the Company will not be able to meets its obligations.

In February 2016, the FASB issued ASU 2016-02 Leases (Topic 842) which is intended to increase transparency and comparability of accounting for lease transactions. The ASU will require all leases to be recognized on the balance sheet as lease assets and lease liabilities. Lessor accounting remains similar to the current model, but updated to align with certain changes to the lessee model (e.g., certain definitions, such as initial direct costs, have been updated) and the new revenue recognition standard. Lease classifications by lessors are similar; operating, direct financing, or sales-type. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. Classification will be based on criteria that are largely similar to

those applied in current lease accounting, but without explicit thresholds. The ASU will require both quantitative and qualitative disclosures regarding key information about leasing arrangements.

RCM6, LLC
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The standard is effective for the Company for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will require application of the new guidance at the beginning of the earliest comparative period presented. Management is currently evaluating the effect of this ASU on its financial statements and disclosures.

Reclassifications

Certain reclassifications have been made to the prior years' financial statements to conform to the current year presentation. These reclassifications had no effect on previously reported results of operations or members equity.

NOTE 2 – FIXED ASSETS

Fixed assets are comprised of the Facility and ancillary equipment. These assets are recorded at cost and depreciated using the straight-line method with an estimated useful life of 20 years.

The following table summarizes the components of gross and net carrying amounts for fixed assets as of December 31, 2015 and 2014:

	2015	2014
Facility and other refined coal production equipment	$3,016,308	$2,991,778
Accumulated depreciation	(543,909)	(383,688)
Fixed assets, net	$2,472,399	$2,608,090

Fixed assets are stated at historical cost. Expenditures for major renewals and improvements are capitalized, while maintenance and repair costs that do not significantly improve the related asset or extend its useful life, are charged to expense as incurred. Depreciation expense was $160,221 and $136,426 for the year ended December 31, 2015 and period February 10, 2014 to December 31, 2014, respectively.

Under the site agreement between the Company and the Generator, the Company is required to remediate the Facility site to its original condition upon termination of the agreement. This asset retirement obligation ("ARO") is based upon estimated removal costs of the Facility at the end of the site license agreement term anticipated to be December 31, 2021. The following table summarizes changes to the Company's AROs as of December 31, 2015 and 2014:

	2015	2014
Beginning ARO balance	$103,173	$—
Liabilities incurred	—	95,807
Accretion	10,710	7,366
Ending ARO balance	$113,883	$103,173

RCM6, LLC
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NOTE 3 – INVENTORIES

Inventory is comprised of feedstock coal and chemicals used in the production of refined coal. A summary of inventories follows:

	2015	2014
Feedstock Coal Inventory	$8,535,347	$8,001,092
Chemical Inventory	69,035	99,510
	$8,604,382	$8,100,602

Inventory is valued at average cost. The Company assesses the inventory valuation on a monthly basis and reduces the value for any obsolete inventory. No valuation allowance was considered necessary as of December 31, 2015 and 2014, respectively.

NOTE 4 – SECURED PROMISSORY NOTE

On February 10, 2014, the Company entered into an $11.0 million secured promissory note (“Note”) with the Generator from which it purchases feedstock coal and to which it sells refined and unrefined coal on a monthly basis. The purpose of the Note is to finance the purchases of feedstock coal from the Generator. The amount of principal and interest owed is dependent upon the amount of feedstock coal purchased, and the refined and unrefined coal sold between the two parties and is net settled on a monthly basis. The Note is collateralized by the feedstock coal inventory. The Note bears interest at a per annum rate equal to the short-term applicable federal rate announced by the IRS in December of each year. The rates were 0.34% and 0.25% for 2015 and 2014, respectively. Interest is payable quarterly in arrears.

All outstanding amounts owed under the Note are due and payable on the earlier of December 31, 2021 or the termination or expiration of the feedstock coal purchase agreement between the Company and the Generator.

At December 31, 2015 and 2014, the outstanding balance on the Note was $7,535,347 and $7,001,092 respectively. Interest payable of $6,261 and $4,213, respectively were recorded at December 31, 2015 and 2014.

NOTE 5 – MEMBERS’ EQUITY

The Company was formed by OE-TO, LLC, a 100% owned subsidiary of Clean Coal Solutions, LLC (“CCS”). OE-TO, LLC sold 99.8% of its interest in the Company on February 10, 2014 to various related party (49.9%) and third party investors (49.9%).

NOTE 6 – RELATED PARTY TRANSACTIONS

The Company conducts business with various related party entities. CCS is the 100% parent company of OE-TO, LLC which sold the membership interests in the Company on February 10, 2014. CCS is owned, in part, by ADA-ES, Inc. (“ADA”) which is the parent company of ADA-RCM6, LLC, one of the members of the Company.

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CCS and ADA have entered into technology license agreements pursuant to which ADA licensed to CCS certain technology used in the operation of the Facility to produce refined coal. CCS has sublicensed the technology to the Company for an annual fee. The sublicense agreement terminates on the earlier of the last date upon which the patents terminate, the sale or transfer of the Company's ownership of the Facility, or the expiration of the Section 45 PTC term.

Clean Coal Solutions Services, LLC ("CCSS") has been hired by the Company to provide operations and maintenance services ("Services") at the Facility. CCSS is reimbursed for costs plus a fee for the Services. CCSS is also owned, in part, by ADA.

CCS-AE is a 0.20% member of the Company and is the appointed Manager of the Company. CCS-AE is a 100% owned subsidiary of OE-TO, LLC.

As of and for the year ended December 31, 2015 and period February 10, 2014 to December 31, 2014, the Company incurred expenses and had amounts payable to the following related party entities:

	CCS	CCSS	CCS-AE
Amounts payable at December 31, 2015	$ —	$ 360,987	$ 35,176
Amounts payable at December 31, 2014	—	386,710	297,584
Expenses incurred for the year ended December 31, 2015	10,000	1,962,872	443,054
Expenses incurred for the period from February 10, 2014 to December 31, 2014	10,000	1,979,334	468,010

For the year ended December 31, 2015 and 2014, respectively, the Company reimbursed CCSS for the purchase of assets in the amounts of $24,530 and $69,715.

As of December 31, 2015, the Company had related party accounts receivable of $269,460 from ADA.

NOTE 7 – CONCENTRATIONS

GAAP requires disclosure of information about current vulnerabilities due to certain concentrations of business and credit risks. In addition to concentrations discussed in Note 1, these matters include the following:

In the event of a repeal of the Section 45 PTCs by the U.S. Congress, a key driver of the economics of the Company would be materially impacted. Additionally, the purchases and sales of feedstock coal are individually dependent upon the Generator at its Station located in the Northern United States.

Significant increases in coal prices, new government regulations, and regional changes in coal fired energy demand could also have a significant impact on the Company's future operations.

The chemicals utilized by the Company to produce refined coal are available from a limited number of vendors in the United States. The Company's future operations may be materially and adversely affected if the Company encounters difficulty procuring these chemicals, the quality of available chemicals deteriorates, or there are significant price increases for these chemicals.

In November 2013, the Company entered into two chemical purchase agreements with separate vendors. Under the first agreement, the Company is required to procure 100% of the specified chemical product for

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the production of refined coal at the Station from the vendor for five years. In the event the Company does not meet certain minimum purchasing requirements, it must pay a minimum monthly fee to the vendor to be applied to future chemical purchases. As of December 31, 2015 and 2014 no prepaid balance was outstanding. The Company can terminate the agreement if certain pricing requirements are not met by the vendor. The agreement was amended in February 2016 to increase the minimum monthly fee to $24,000 per month from the previous level of $10,000.

A purchase agreement with a second vendor requires the Company to procure 80% of a designated chemical from the vendor at stipulated prices and terms for a three year period. The Company can terminate the agreement if the vendor cannot meet competitive pricing requirements and delivery terms.

NOTE 8 – SUBSEQUENT EVENTS

Effective in January 2016 the Company’s Limited Liability Agreement (“LLC Agreement”) was amended. Under the amended LLC Agreement certain additional capital call limitations were added, requiring the Company to be limited to calling capital if certain operational costs are exceeded.

Additionally in March 2016, one of the members of the Company purchased the interests held by two of the other members. The member purchase transaction did not impact the financial statements of the Company.

Management evaluated subsequent events through April 12, 2016, the date financial statements were available to be issued.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Advanced Emissions Solutions, Inc.
(Registrant)

By/s/ L. Heath Sampson	By/s/ A. Bradley Gabbard
L. Heath Sampson	A. Bradley Gabbard
President, Chief Executive Officer and Treasurer (Principal Executive and Accounting Officer)	Chief Financial Officer (Principal Financial Officer)
Date: April 19, 2016	Date: April 19, 2016

Pursuant to the requirements of the Exchange Act, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

By/s/ Kim B. Clarke	By/s/ A. Bradley Gabbard
Kim B. Clarke, Director	A. Bradley Gabbard, Director and Chief Financial Officer
Date: April 19, 2016	Date: April 19, 2016
By/s/ Derek C. Johnson	By/s/ Paul A. Lang
Derek C. Johnson, Director	Paul A. Lang, Director
Date: April 19, 2016	Date: April 19, 2016
By/s/ L. Heath Sampson	By/s/ Christopher S. Shackelton
L. Heath Sampson, Director, President, Chief Executive Officer and Treasurer	Christopher S. Shackelton, Director
Date: April 19, 2016	Date: April 19, 2016
By/s/ J. Taylor Simonton	By/s/ L. Spencer Wells
J. Taylor Simonton, Director	L. Spencer Wells, Director
Date: April 19, 2016	Date: April 19, 2016