

Advanced Emissions Solutions, Inc.  
Form 10-Q  
August 09, 2013

United States

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2013

or

TRANSITION REPORT PURSUANT TO 13 OR 15(d) OF THE EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 000-54992

ADVANCED EMISSIONS SOLUTIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of incorporation or organization)

27-5472457  
(I.R.S. Employer Identification No.)

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9135 South Ridgeline Boulevard, Suite 200,

Highlands Ranch, Colorado  
(Address of principal executive offices)  
(303) 734-1727

80129  
(Zip Code)

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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 the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer

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 Exchange Act. (Check one): Yes  No

APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PRECEDING FIVE YEARS:

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes  No

APPLICABLE ONLY TO CORPORATE ISSUERS:

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

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Class	Outstanding at July 31, 2013
Common Stock, \$0.001 par value	10,108,265

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## Part I. FINANCIAL INFORMATION

## Item 1. Consolidated Financial Statements

## ADA-ES, Inc. and Subsidiaries

## Consolidated Balance Sheets

As of June 30, 2013 and December 31, 2012

(Amounts in thousands, except share data)

	June 30, 2013 (Unaudited)	December 31, 2012
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents	\$ 12,289	\$ 9,737
Receivables, net of allowance for doubtful accounts	18,009	11,025
Investment in securities	3,148	1,641
Prepaid expenses and other assets	3,496	2,888
Total current assets	36,942	25,291
Property and Equipment, at cost	55,081	53,542
Less accumulated depreciation and amortization	(11,530)	(8,931)
Net property and equipment	43,551	44,611
Investment in unconsolidated entity	2,447	1,850
Other assets	4,047	3,997
Total other assets	6,494	5,847
Total Assets	\$ 86,987	\$ 75,749
<b>LIABILITIES, TEMPORARY EQUITY AND STOCKHOLDERS DEFICIT</b>		
Current Liabilities		
Accounts payable	\$ 12,565	\$ 6,615
Accounts payable to related parties	2,713	5,082
Accrued payroll and related liabilities	3,979	2,569
Line of credit		3,000
Current portion of notes payable	570	559
Deposits	7,200	21,200
Deferred revenue and other liabilities	27,900	10,372
Total current liabilities	54,927	49,397
Long-term Liabilities		
Long-term portion of notes payable	2,017	2,305
Deferred revenue	11,218	875
Accrued warranty and other liabilities	1,107	3,309
Total long-term liabilities	14,342	6,489

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Total Liabilities	69,269	55,886
Commitments and Contingencies (Note 10)		
Temporary Equity Non-controlling Interest Subject to Possible Redemption	60,000	60,000
Stockholders Deficit		
ADA-ES, Inc. stockholders deficit		
Preferred stock: 50,000,000 shares authorized, none outstanding		
Common stock: no par value, 50,000,000 shares authorized, 10,097,272 and 10,028,269 shares issued and outstanding, respectively	64,794	63,724
Accumulated deficit	(85,112)	(79,765)
Total ADA-ES, Inc. stockholders deficit	(20,318)	(16,041)
Non-controlling interests	(21,964)	(24,096)
Total Stockholders Deficit	(42,282)	(40,137)
Total Liabilities, Temporary Equity and Stockholders Deficit	\$ 86,987	\$ 75,749

See accompanying notes.

## ADA-ES, Inc. and Subsidiaries

## Consolidated Statements of Operations

For the Three and Six Months Ended June 30, 2013 and 2012

(Amounts in thousands, except per share data)

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Revenues				
Refined coal	\$ 44,188	\$ 48,351	\$ 102,311	\$ 63,525
Emission control	12,014	3,965	20,783	6,729
CO <sub>2</sub> capture	2,728	195	4,150	477
Total revenues	58,930	52,511	127,244	70,731
Cost of Revenues				
Refined coal	36,167	41,908	87,636	53,951
Emission control	9,711	3,087	15,964	5,155
CO <sub>2</sub> capture	2,458	82	3,662	199
Total cost of revenues	48,336	45,077	107,262	59,305
Gross Margin before Depreciation and Amortization	10,594	7,434	19,982	11,426
Other Costs and Expenses				
General and administrative	8,109	4,040	15,422	7,679
Research and development	577	618	924	1,182
Depreciation and amortization	1,347	1,181	2,769	2,205
Total expenses	10,033	5,839	19,115	11,066
Operating Income	561	1,595	867	360
Other Income (Expense)				
Net equity in net income from unconsolidated entity	274	132	597	168
Other income including interest	165	42	235	141
Interest expense	(248)	(431)	(631)	(901)
Other expense	(735)	(469)	(1,408)	(753)
Total other income (expense)	(544)	(726)	(1,207)	(1,345)
Income (Loss) Before Income Taxes and Non-controlling Interests	17	869	(340)	(985)
Income Taxes				
Net Income (Loss) Before Non-controlling Interests	17	869	(340)	(985)
Income Attributable to Non-controlling Interests	(3,195)	(2,167)	(5,007)	(2,733)
Net Loss Attributable to ADA-ES, Inc.	\$ (3,178)	\$ (1,298)	\$ (5,347)	\$ (3,718)
Net Loss Per Common Share Basic and Diluted Attributable to ADA-ES, Inc.	\$ (0.32)	\$ (0.13)	\$ (0.53)	\$ (0.37)
Weighted Average Common Shares Outstanding	10,076	10,002	10,063	10,004

See accompanying notes.



## ADA-ES, Inc. and Subsidiaries

## Consolidated Statements of Changes in Stockholders Deficit

For the Six Months Ended June 30, 2013 and 2012

(Amounts in thousands, except share data)

(Unaudited)

	Common Stock		Accumulated Deficit	Total ADA-ES Stockholders Deficit	Non- controlling Interests	Total Deficit
	Shares	Amount				
Balances, January 1, 2012	9,996,144	\$ 63,184	\$ (66,694)	\$ (3,510)	\$ (25,936)	\$ (29,446)
Stock-based compensation	5,725	78		78		78
Issuance of stock to 401(k) plan	8,847	197		197		197
Issuance of stock on exercise of options	1,966	21		21		21
Distributions to non-controlling interests					(106)	(106)
Expense of stock issuance and registration		(22)		(22)		(22)
Net income (loss)			(3,718)	(3,718)	2,733	(985)
Balances, June 30, 2012	10,012,682	\$ 63,458	\$ (70,412)	\$ (6,954)	\$ (23,309)	\$ (30,263)
Balances, January 1, 2013	10,028,269	\$ 63,724	\$ (79,765)	\$ (16,041)	\$ (24,096)	\$ (40,137)
Stock-based compensation	51,562	737		737		737
Issuance of stock to 401(k) plan	11,621	245		245		245
Issuance of stock on exercise of options	5,820	88		88		88
Distributions to non-controlling interests					(2,875)	(2,875)
Net income (loss)			(5,347)	(5,347)	5,007	(340)
Balances, June 30, 2013	10,097,272	\$ 64,794	\$ (85,112)	\$ (20,318)	\$ (21,964)	\$ (42,282)



See accompanying notes.

## ADA-ES, Inc. and Subsidiaries

## Consolidated Statements of Cash Flows

For the Six Months Ended June 30, 2013 and 2012

(Amounts in thousands)

(Unaudited)

	Six Months Ended	
	June 30,	
	2013	2012
Cash Flows from Operating Activities		
Net loss	\$ (5,347)	\$ (3,718)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	2,769	2,205
Expenses paid with stock, restricted stock and stock options	982	275
Net equity in net income from unconsolidated entity	(597)	(168)
Non-controlling interest in income from subsidiary	5,007	2,733
Changes in operating assets and liabilities:		
Receivables, net	(6,984)	(7,978)
Prepaid expenses and other assets	(658)	(829)
Accounts payable	3,581	625
Accrued payroll and related liabilities	1,410	(1,137)
Deposits	(4,700)	
Deferred revenue and other liabilities	16,369	(5,582)
Net cash provided by (used in) operating activities	11,832	(13,574)
Cash Flows from Investing Activities		
Investment in securities	(1,507)	(227)
Capital expenditures for property and equipment	(1,709)	(6,837)
Net cash used in investing activities	(3,216)	(7,064)
Cash Flows from Financing Activities		
Net borrowing (repayment) under line of credit	(3,000)	3,503
Repayments of notes payable	(277)	
Loan to unconsolidated entity		(500)
Distributions to non-controlling interests	(2,875)	(106)
Exercise of stock options	88	21
Stock issuance and registration costs		(22)
Net cash provided by (used in) financing activities	(6,064)	2,896
Increase (Decrease) in Cash and Cash Equivalents	2,552	(17,742)
Cash and Cash Equivalents, beginning of period	9,737	40,879
Cash and Cash Equivalents, end of period	\$ 12,289	\$ 23,137
Supplemental Schedule of Non-Cash Flow Financing Activities		
Stock and stock options issued for services	\$ 982	\$ 275
Cash paid for interest	\$ 932	\$ 1,110

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Accrued capital expenditures	\$	\$ 1,594
Deposits transferred to deferred revenue	\$ 9,300	\$ 3,000

See accompanying notes.

ADA-ES, Inc. and Subsidiaries

Notes to Consolidated Financial Statements (Unaudited)

(1) Basis of Presentation

Nature of Operations

ADA-ES, Inc. ( ADA ), its wholly-owned subsidiaries Advanced Emissions Solutions, Inc., a Delaware corporation ( ADES ) and ADA Intellectual Property, LLC, a Colorado limited liability company ( ADA IP ), both of which had no operations during the first six months of 2013, BCSI, LLC, a Delaware limited liability company ( BCSI ), ADA Environmental Solutions, LLC, a Colorado limited liability company ( ADA LLC ) and ADA 's joint venture interest in Clean Coal Solutions, LLC ( Clean Coal ) are collectively referred to as the Company . Pursuant to an Agreement and Plan of Merger dated March 25, 2013 (the Reorganization ), effective July 1, 2013, ADES replaced ADA as the publicly-held corporation. As this periodic report pertains to the period ended June 30, 2013, and the reorganization was effective July 1, 2013, the term Company , we , us and our means ADA and its subsidiaries and Clean Coal joint venture for the periods through and including June 30, 2013, and ADES and its subsidiaries and Clean Coal joint venture for the periods after June 30, 2013. The Reorganization is more fully described in the proxy statement/prospectus relating to ADA 's Annual Meeting of Shareholders filed with the United States Securities and Exchange Commission (the SEC ) on April 25, 2013. ADES and its subsidiaries have continued to conduct the business previously conducted by the Company in substantially the same manner as conducted prior to the Reorganization. For further information, see Note 13 below.

The Company is principally engaged in providing environmental technologies and specialty chemicals to the coal-burning electric power generation industry. The Company generates a substantial part of its revenue from the sale of refined coal ( RC ), the sale of Activated Carbon Injection ( ACI ) and Dry Sorbent Injection ( DSI ) systems, contracts co-funded by the government and industry and the development and lease or sale of equipment for the RC market. The Company 's sales occur principally throughout the United States.

The accompanying unaudited interim consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial statements and with the instructions to Form 10-Q and Article 10 of Regulation S-X. They do not include all of the information and footnotes required by U.S. generally accepted accounting principles for complete financial statements. The consolidated financial statements include the financial statements of ADA, ADES, ADA IP, BCSI, ADA LLC and Clean Coal. All significant intercompany balances and transactions have been eliminated in consolidation.

In the opinion of management, the consolidated financial statements include all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of the results of operations, financial position and cash flows for the interim periods presented. Operating results for the three and six months ended June 30, 2013 are not necessarily indicative of the results that may be expected for the year ending December 31, 2013.

These statements should be read in conjunction with the consolidated financial statements and related notes to the consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2012. The accounting policies used in preparing these consolidated financial statements are the same as those described in our Form 10-K.

The Company prepares its consolidated financial statements in conformity with U.S. generally accepted accounting principles. The preparation of these financial statements requires the Company 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 revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### Reclassifications

Certain amounts have been reclassified from the prior periods to conform to the current period financial statement presentation. Such reclassification had no effect on the net loss reported.

## (2) Property and Equipment

Property and equipment consisted of the following at the dates indicated:

	Life in Years	As of June 30, 2013	As of December 31, 2012
		(in thousands)	
Machinery and equipment	3-10	\$ 8,828	\$ 7,522
Leasehold improvements	2-5	1,190	1,106
Furniture and fixtures	3-7	878	781
RC assets	10	44,185	44,133
		55,081	53,542
Less accumulated depreciation and amortization		(11,530)	(8,931)
Total property and equipment, net		\$ 43,551	\$ 44,611

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
	(in thousands)			
Depreciation and amortization	\$ 1,347	\$ 1,181	\$ 2,769	\$ 2,205

## (3) Investment in Unconsolidated Entity

## Clean Coal Solutions Services

On January 20, 2010, ADA, together with NexGen Resources Corporation ( NexGen ), formed Clean Coal Solutions Services, LLC ( CCSS ) for the purpose of operating RC facilities. ADA has a 50% ownership interest in CCSS (but does not have management control of it) and ADA's investment in and advances to CCSS which totaled \$2.4 million as of June 30, 2013 includes its share of CCSS income since its formation and is accounted for under the equity method of accounting.

The following schedule shows ADA's share of net income attributed to CCSS.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
	(in thousands)			

ADA's share of net income attributed to CCS \$ 274      \$ 132      \$ 597      \$ 168

#### (4) Joint Venture Investment in Clean Coal

In November 2006, ADA sold a 50% interest in its joint venture Clean Coal to NexGen, which was formed in 2006 to market RC technology. In May 2011, ADA and NexGen entered into a transaction in which Clean Coal sold an effective 15% interest of the equity in Clean Coal to GSFS Investments I Corp. ( GSFS ), an affiliate of the Goldman Sachs Group, Inc. ( GS ), which is included in temporary equity subject to possible redemption in the consolidated balance sheets (see Note 8). GSFS has certain preferences over ADA and NexGen as to liquidation and profit distribution. GSFS has no further capital call requirements and does not have a voting interest but does have approval rights over certain corporate transactions.

In September 2011, ADA, NexGen and GSFS entered into a First Amendment to Second Amended and Restated Operating Agreement pursuant to which ADA and NexGen each transferred their 2.5% member interests in each of Clean Coal's subsidiaries back to Clean Coal. As a result of these transactions, ADA's interest in Clean Coal's net profits and losses is 42.5%. This restructuring of ownership interests did not change the financial relationships of the parties and ADA still maintains a 50% governance interest in Clean Coal. In July 2012, ADA, NexGen and GSFS entered into a Second Amendment to the Operating Agreement (the Operating Agreement ) which, among other things, expanded Clean Coal's board of managers to allow for the appointment of an additional manager not directly representative of any of the members. Since its inception, ADA has been considered the primary economic beneficiary of this joint venture and has consolidated the accounts of Clean Coal.

Clean Coal's function is to supply technology, equipment and technical services to cyclone-fired and other boiler users, and its primary purpose is to put into operation facilities that produce RC that qualifies for tax credits that are available under Section 45 of the Internal Revenue Code ( Section 45 tax credits ). Clean Coal qualified two facilities in 2009 for such purposes and in June 2010 leased those facilities to GS RC Investments, LLC ( GS RC ), a related entity of GS.

In December 2010, the Tax Relief and Job Creation Act of 2010 extended the placed in service deadline for the Section 45 tax credits to January 1, 2012. In consideration of the extension, Clean Coal built and qualified an additional 26 RC facilities in 2011, which met the extended placed in service date. In November and December 2011, the two leased RC facilities qualified in 2009 were exchanged with newly constructed, redesigned RC facilities. The new leases carried over most of the substantive terms and conditions of the initial leases. In March 2013 the parties amended and restated the lease agreements to modify the structure and timing of the lease payments. The payments are due quarterly in advance and are subject to adjustments for inflation. Each lease has an initial non-cancellable term of two years and will automatically renew unless terminated at the option of the lessee thereof, for successive one-year terms through November 9, 2021 and December 10, 2021, as applicable. The parties also amended and restated the two Operating and Maintenance Agreements pursuant to which CCSS (subject to oversight by the lessee) operates and maintains the RC facilities to provide for the payment of a fixed fee under the agreements instead of payments based on the production of RC as had previously been in place.

Clean Coal leased two additional RC facilities in 2012, the third to an entity related to GS and the fourth to a third party investor. All agreements included terms and conditions substantially similar to those applicable to the first two leased RC facilities. On February 28, 2013, Clean Coal sold an RC facility to a new third party investor. In July 2013, two additional RC facilities were leased to entities related to GS with terms and conditions substantially similar to the terms then in place for the first two leased RC facilities, bringing the total number of RC facilities leased or sold to seven.

The Operating Agreement requires NexGen and ADA to each pay 50% of the costs of operating Clean Coal and specifies certain duties that both parties are obligated to perform.

Following is unaudited summarized information as to assets, liabilities and results of operations of Clean Coal:

	As of June 30, 2013	As of December 31, 2012
	(in thousands)	
Primary assets		
Cash and cash equivalents	\$ 4,337	\$ 994
Accounts receivable, net	2,764	3,275
Prepaid expenses and other assets	11,103	2,546
Property, plant and equipment including assets under lease and assets placed in service, net	38,636	40,096
Primary liabilities		
Accounts payable and accrued liabilities	\$ 2,007	\$ 5,728
Accounts payable to related parties	2,767	5,082
Line of credit		3,000
Deposits	7,200	21,200
Deferred revenue, current	19,516	625
Deferred revenue, long-term	11,218	875



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	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
	(in thousands)			
Net revenue \$	44,188	\$ 48,351	\$ 102,311	\$ 63,525
Net income \$	5,556	\$ 3,767	\$ 8,707	\$ 4,752

Amounts due to CCSS

Clean Coal has recorded accounts payable to CCSS totaling \$1.2 million and \$3.5 million as of June 30, 2013 and December 31, 2012, respectively, which are included in accounts payable to related parties in the accompanying consolidated balance sheets.

(5) Deferred Revenue and Deposits

Deferred revenue consists of:

billings in excess of costs and earnings on uncompleted contracts; and

deferred rent revenue related to Clean Coal's lease and sale of its RC facilities.

## Clean Coal Deferred Rent Revenue

Clean Coal has received \$20 million in prepaid rents related to RC facilities leased and sold thus far in 2013.

Following is a table of current deferred revenue which is included in deferred revenue and other liabilities in the consolidated balance sheets and long-term deferred revenue which is included in deferred revenue in the consolidated balance sheets related to prepaid rents:

	As of June 30, 2013	As of December 31, 2012
	(in thousands)	
Deferred revenue, short-term	\$ 19,516	\$ 625
Deferred revenue, long-term	\$ 11,218	\$ 875

The following table presents total rent revenues recognized and amortization with respect to the prepaid rents:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
	(in thousands)			
Rent revenue recognized	\$ 11,642	\$ 10,590	\$ 23,855	\$ 15,980
Amortization of prepaid rent included in amounts above	\$ 3,527	\$ 900	\$ 4,101	\$ 1,800

## Clean Coal Deposits

At June 30, 2013 and December 31, 2012, Clean Coal had deposits of \$7.2 million and \$21.2 million, respectively, from GSFS towards RC facilities which may be leased upon attainment of certain milestones, which are included in the consolidated balance sheets. The deposit amount from 2012 decreased \$14 million which included \$9.3 million that was transferred to deferred revenue for one RC facility and \$4.7 million that was returned to GSFS in the first quarter of 2013 as it was determined that they would not pursue leases on two particular RC facilities. As discussed in Note 4, in July 2013, two additional RC facilities were leased to entities related to GS. Clean Coal received more than \$14 million in prepaid rents for these RC facilities and will transfer the related \$7.2 million in deposits to deferred revenue and recognize this as revenue over the terms specified in the lease agreements.

## (6) Net Loss Per Share

Basic net loss per share is computed based on the weighted average common shares outstanding in the period. Diluted net loss per share is computed based on the weighted average common shares outstanding in the period and the effect of dilutive securities (stock options and awards) except where the inclusion is anti-dilutive.

All outstanding stock options (see Note 7) to purchase shares of common stock for the three and six months ended June 30, 2013 and 2012 were excluded from the calculation of diluted shares, as their effect is anti-dilutive.

(7) Share Based Compensation

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 (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 share-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 Notes 1 and 13, 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.

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 1,000 shares per individual per year, and the grant of options is limited to 5,000 per individual in total. The aggregate number of shares of common stock reserved for issuance under the 2005 Plan totals 90,000 shares (50,000 in the form of stock awards and 40,000 in the form of options). In February 2013, a new board member was issued 5,000 options under the 2005 Plan. These stock options vest in three equal annual installments beginning one year after the grant date.

The 2007 Plan, which was adopted by the Company in 2007, permits grants to employees, directors and non-employees of shares of common stock, restricted stock, stock options and other rights and benefits under the plan. The 2007 Plan was amended and restated as of August 31, 2010 to make non-material changes to assure Internal Revenue Code Section 409A compliance and to increase the non-management director annual grant limit to 15,000 shares of common stock from 10,000 shares. On July 19, 2012, the stockholders of the Company approved an amendment to the 2007 Plan to increase the number of shares presently issuable to 1.3 million and increase the number of shares authorized for issuance to 1.8 million. In addition, the stockholders also approved an increase in the number of shares with respect to which awards may be granted in any fiscal year from 30,000 to 50,000 and the annual grant limit for the non-management director annual grant was increased to 30,000 shares.

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 300,000 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.

The 2010 Plan, which was adopted by the Company in 2010, permits grants of awards, which may be shares, rights to purchase restricted stock, bonuses of restricted stock or other rights or benefits under the plan. The Company reserved 300,000 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 fair value of stock options granted pursuant to one of the Company's plans is determined on the date of grant using the Black-Scholes option pricing model and the related compensation expense is recognized on a straight-line basis over the vesting period. The fair value of restricted stock awards is determined based on the closing price of the Company's common stock on the date of grant multiplied by the number of shares subject to the stock award. Compensation expense for restricted stock awards is recognized over the vesting period on a straight-line basis.

In May 2013, the Compensation Committee of the Board of Directors approved long-term incentive awards for executive officers under the 2007 Plan. The awards included the grant of 44,789 shares of restricted stock at a per share price of \$31.29 that will vest in equal installments on January 1, 2014, January 1, 2015 and January 1, 2016 subject to the grantee's continuous service with the Company and the grant of 89,578 performance share units ( PSUs ). Each PSU represents a contingent right to receive shares of the Company's common stock if the Company meets certain performance measures over the period from January 1, 2013 through December 31, 2015. Vesting of the PSUs, if at all, will occur no later than January 1, 2016, subject to the grantee's continuous service and the achievement of certain pre-established performance goals to be measured as of December 31, 2015, unless the PSUs 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 PSUs 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 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 15 peer companies and the remaining 25% based on the Company's TSR performance compared to the Russell 3000 Index. Compensation expense is recognized for PSU awards on a straight-line basis over the applicable service period based on the estimated fair value at the date of grant using a Monte Carlo simulation model. The valuation model for the PSU award used an average expected volatility of 81.43%, expected dividend yield of 0% and a risk-free interest rate of 0.36%. For the six months ended June 30, 2013, the Company recorded approximately \$146,000 in compensation expense related to the PSU awards. There was unrecognized compensation expense for the PSU awards of approximately \$2.2 million as of June 30, 2013.

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Following is a table summarizing the activity under various stock issuance plans for the six months ended June 30, 2013:

	Stock Issuance Plans			Other Stock
	2007 Plan	401(k) Plan	2010 Plan	Plans
Shares available, January 1, 2013	531,764	136,582	298,102	5,065
Evergreen addition	3,213			
Restricted stock issued to executives and employees	(27,048)		(4,232)	
Stock issued based on incentive and matching programs to employees		(11,621)	(2,354)	
Stock issued to executives, directors and employees	(20,037)			
Forfeited shares	2,109			
Balance available, June 30, 2013	490,001	124,961	291,516	5,065

As noted above, 89,578 PSUs were granted that represent a contingent right to receive shares of the Company's common stock and such shares, if issued, would decrease the available shares in the 2007 Plan.

Expense recognized under the different plans for stock and stock options for the six months ended:

		(in thousands)		
June 30, 2013	\$ 632	\$ 245	\$ 87	\$ 18
June 30, 2012	\$ 78	\$ 197	\$	\$

Unrecognized expense under the different plans as of June 30, 2013 (in thousands) \$ 2,040 \$ 138 \$

A summary of the status of the non-vested restricted stock shares as of June 30, 2013 is presented below:

	Shares	Weighted Average Grant Date Fair Value
Non-vested at January 1, 2013	107,563	\$ 8.26
Granted	31,280	\$ 28.60
Vested	(3,552)	\$ 10.84
Forfeited	(2,109)	\$ 18.21
Non-vested at June 30, 2013	133,182	\$ 16.97

Following is a table of stock option activity for the quarter ended June 30, 2013:

	Employee and Director Options	Weighted Average Exercise Price
Options outstanding, January 1, 2013	185,976	\$ 10.20
Options granted	5,000	\$ 23.85
Options expired	(5,000)	\$ 10.20
Options exercised	(5,820)	\$ 12.44
Options outstanding and exercisable, June 30, 2013	180,156	\$ 10.50



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Following is a table of aggregate intrinsic value of stock options exercised and exercisable for the six months ended June 30, 2013:

	Intrinsic Value	Average Market Price
Exercised, June 30, 2013	\$ 90,600	\$ 28.00

	Intrinsic Value	Market Price
Exercisable, June 30, 2013	\$ 5,696,600	\$ 42.12

Stock options outstanding and exercisable at June 30, 2013 are summarized in the table below:

Range of Exercise Prices	Number of Options Outstanding and Exercisable	Weighted Average Exercise Price	Weighted Average Remaining Contractual Lives
\$8.60 - \$10.20	136,063	\$ 8.60	2.5
\$13.80 - \$15.20	34,093	\$ 14.82	2.1
\$19.54 - \$23.85	10,000	\$ 21.70	4.5
	180,156	\$ 10.50	2.5

(8) Temporary Equity Subject to Possible Redemption

As described in Note 4, in May 2011, ADA and NexGen entered into a transaction in which Clean Coal sold an effective 15% interest of the equity in Clean Coal to GSFS. Approximately 15.8 units of non-voting Class B membership interests were issued to GSFS for \$60 million in cash. ADA and NexGen each received \$30 million as a result of the sale. The terms of the Operating Agreement permit GSFS to require redemption of the unreturned portion of its initial \$60 million investment in Clean Coal plus a return of 15% in 2021 and under certain limited circumstances. As a result, \$60 million is classified as temporary equity subject to possible redemption in the consolidated balance sheets.

(9) Stockholders Deficit



The non-controlling interest portion of stockholders' deficit includes the non-controlling interests related to Clean Coal.

(10) Commitments and Contingencies

Line of Credit

Clean Coal has a revolving line of credit with a bank for \$15 million secured by the equity interests and proceeds related to such equity interests of each subsidiary owned by Clean Coal. In January 2013, the revolving line of credit agreement was amended to provide a \$2 million revolver with any borrowings under the amended agreement due on December 31, 2013. The increased commitment is secured by the equity interests and proceeds related to such equity interests of each subsidiary owned by Clean Coal. There was no outstanding balance under this agreement at June 30, 2013.

Retirement Plan

The 401(k) plan covers all eligible employees of ADA and the Company makes matching contributions to the plan in the form of cash and its common stock. Such contributions are as follows:

	Three Months Ended		Six Months Ended	
	June 30,	June 30,	June 30,	June 30,
	2013	2012	2013	2012
	(in thousands)			
Matching contributions in stock	\$ 132	\$ 113	\$ 245	\$ 197
Matching contributions in cash				
Total	\$ 132	\$ 113	\$ 245	\$ 197

Performance Guarantee on Emission Control Systems

Under certain contracts to supply emission control systems, the Company may guarantee certain aspects of the performance of the associated equipment for a specified period to the owner of the power plant. The Company may also guarantee the achievement of a

certain level of mercury and/or acid gas removal based upon the injection of a specified quantity of a qualified sorbent at a specified rate given other plant operating conditions. In the event the equipment fails to perform as specified, the Company may have an obligation to correct or replace the equipment. In the event the level of emission removal is not achieved, the Company may have a make right obligation within the contract limits. The Company assesses the risks inherent in each applicable contract and accrues an amount that is based on estimated costs that may be incurred over the performance period of the contract. Such costs are included in the Company's accrued warranty and other liabilities in the consolidated balance sheets. Any warranty costs paid out in the future will be charged against the accrual. The adequacy of the warranty accrual balance is assessed at least quarterly based on the then current facts and circumstances and adjustments are made as needed.

The changes in the carrying amount of the Company's performance guaranties are as follows:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
	(in thousands)			
Beginning balance	\$ 814	\$ 546	\$ 668	\$ 547
Performance guaranties accrued	128	16	282	17
Expenses paid	(6)		(14)	(2)
Ending balance	\$ 936	\$ 562	\$ 936	\$ 562

In some cases, a performance bond may be purchased and held for the period of the warranty as an alternative to satisfy the obligation.

#### Clean Coal

The Company also has certain obligations in connection with the activities of Clean Coal. ADA, NexGen and two entities affiliated with NexGen have provided GS RC with joint and several guaranties (the CCS Party Guaranties) guaranteeing all payments and performance due under the related transaction agreements. ADA also entered into 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.

GS RC has provided Clean Coal with a guaranty as to the payment only if all the initial term fixed rent payments and the renewal term fixed rent payments under the related leases, which, although terminable at any time, cannot be terminated without the substitution of such guaranty with another guaranty on similar terms from a creditworthy guarantor.

#### Arbitration Award Liabilities

As previously reported in various filings, ADA had been engaged in litigation with Norit Americas, Inc. and Norit International N.V. f/k/a Norit N.V. (Norit). The Norit lawsuit initially filed in Texas was moved to arbitration, and on April 8, 2011, the arbitration panel issued an interim award holding ADA liable for approximately \$37.9 million for a non-solicitation breach of contract claim and held ADA and certain other defendants liable for royalties of 10.5% for

the first three years beginning in mid-2010 and 7% for the following five years based on adjusted sales of activated carbon from the Red River plant. The Company recorded \$676,000 and \$1.4 million in royalty expense for the three and six months ended June 30, 2013, respectively, and \$455,000 and \$739,000 for the three and six months ended June 30, 2012, respectively, which are included in other expense in the consolidated statements of operations related to this award.

On August 29, 2011, ADA and Norit entered into a settlement agreement whereby ADA paid a lump-sum payment to Norit totaling \$33 million on August 30, 2011. In addition, ADA agreed to pay an additional \$7.5 million over a three-year period commencing on June 1, 2012, payable in three installments without interest of \$2.5 million. Under the terms of the settlement agreement, ADA is also required to pay the royalty noted above and a lesser royalty on certain treated activated carbons. Payments of amounts due under the royalty award for each quarter are payable three months after such quarter ends. On October 18, 2011, the arbitration panel endorsed and confirmed the terms of the settlement agreement. The Company has accrued a current liability as of June 30, 2013 of \$3.2 million which is included in deferred revenue and other liabilities related to this agreement.

## (11) Income Taxes

Income taxes are accounted for under the asset and liability approach. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of differences between the carrying amounts of assets and liabilities and their respective tax bases using the enacted tax rates in effect for the year in which the differences are expected to reverse. A valuation allowance is provided if and when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period when the change is enacted. At each reporting date, management reviews existing income tax assessments and, if necessary, revises them to reflect changed circumstances. In a situation where recent losses have been incurred, the accounting standards require convincing evidence that there will be sufficient future taxable income to realize deferred tax assets.

The Company has provided a full valuation allowance against the deferred tax assets of \$44.2 million and \$39.5 million as of June 30, 2013 and December 31, 2012 respectively, to reflect the estimated amount of deferred tax assets that may not be realized. The ultimate realization of deferred tax assets is dependent upon generation of future taxable income during the periods in which those temporary differences become deductible. Management considers both positive and negative evidence and tax planning strategies in making this assessment.

## (12) Business Segment Information

The following information relates to the Company's three reportable segments: Refined coal ( RC ), Emission control ( EC ) and CO<sub>2</sub> Capture ( CC ).

All assets are located in the U.S. and are not evaluated by management on a segment basis. All significant customers are U.S. companies and the U.S Government.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
	(in thousands)			
Revenue				
RC				
Rental income	\$ 11,642	\$ 10,590	\$ 23,855	\$ 15,981
Coal sales	31,769	37,739	76,730	47,512
Other revenues	777	22	1,726	32
	44,188	48,351	102,311	63,525
EC				
Systems and equipment	9,915	2,745	17,440	4,157
Consulting and development	2,020	1,058	3,024	2,193
Chemicals	79	162	319	379
	12,014	3,965	20,783	6,729
CC	2,728	195	4,150	477
Total	\$ 58,930	\$ 52,511	\$ 127,244	\$ 70,731
Segment profit				

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RC	\$ 7,547	\$ 4,794	\$ 13,587	\$ 6,580
EC	1,736	102	3,358	177
CC	(316)	16	(396)	78
Total	\$ 8,967	\$ 4,912	\$ 16,549	\$ 6,835

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A reconciliation of the reported total segment profit to net loss for the periods shown above is as follows:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
	(in thousands)			
Total segment profit	\$ 8,967	\$ 4,912	\$ 16,549	\$ 6,835
Non-allocated general and administrative expenses	(7,059)	(2,136)	(12,913)	(4,270)
Depreciation and amortization	(1,347)	(1,181)	(2,769)	(2,205)
Interest and other income	165	42	235	141
Interest expense	(248)	(431)	(631)	(901)
Other expense	(735)	(469)	(1,408)	(753)
Net equity in net income of unconsolidated entity	274	132	597	168
Net income attributable to non-controlling interests	(3,195)	(2,167)	(5,007)	(2,733)
Net loss attributable to ADA-ES, Inc.	\$ (3,178)	\$ (1,298)	\$ (5,347)	\$ (3,718)

Non-allocated general and administrative expenses include costs that benefit the business as a whole and include but are not limited to accounting and human resources staff, information systems costs, facility costs, insurance, legal fees, audit fees and corporate governance expenses.

### (13) Subsequent Event

#### 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. The Reorganization is more fully described in the proxy statement/prospectus relating to ADA's 2013 Annual Meeting of Shareholders filed with the SEC on April 25, 2013.

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 and 50,000,000 shares of preferred stock. 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 will best serve ADES and allow 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 consolidated financial position and results of operations of ADA will be included in the consolidated financial statements of ADES on the same basis as currently presented.

The primary objectives of the Reorganization into a Delaware holding company structure include:

- o to better align our corporate structure with our business operations;
- o 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
- o to take advantage of the benefits of Delaware corporate law.



Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This Report contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933 that involve risks and uncertainties. Words or phrases such as anticipates, believes, hopes, expects, intends, plans, the negative expressions of such words, or similar expressions used in this Report to identify forward-looking statements, and such forward-looking statements include, but are not limited to, statements or expectations regarding:

- (a) the scope and impact of mercury and other regulations or pollution control requirements, including the impact of the final Mercury and Air Toxics Standards ( MATS );
- (b) expected growth in and potential size of our target markets;
- (c) expected supply and demand for our products and services;
- (d) the effectiveness of our technologies and the benefits they provide;
- (e) the timing of awards of, and work under, our contracts and agreements and their value and their availability;
- (f) expected production levels at our refined coal ( RC ) facilities, when those RC facilities will be placed into continuous operation, the expected use of the tax credits under Section 45 of the Internal Revenue Code ( Section 45 tax credits ) generated by the RC facilities and the expected future value of Section 45 tax credits;
- (g) our ability to profitably sell, lease and/or recognize the tax benefits from operating additional RC facilities;
- (h) timing and amounts of or changes in future revenues, funding for our business and projects, margins, expenses, earnings, tax rate, cash flow, working capital, liquidity and other financial and accounting measures;
- (i) the materiality of any future adjustments to previously recorded revenue as a result of Department of Energy ( DOE ) audits and the amount of contributions from the DOE and others towards project demonstrations;
- (j) the ability of third parties to which we lease or sell RC facilities to obtain any requested Private Letter Rulings ( PLRs ) from the Internal Revenue Service ( IRS );
- (k) 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
- (l) the benefits we expect to receive from our recent reorganization.

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; inability to commercialize our technologies on favorable terms; our inability to ramp up our operations to effectively address expected growth in our target markets; loss of key personnel; failure to satisfy performance guaranties; the failure of the facilities operated, leased or sold by Clean Coal Solutions, LLC ( Clean Coal ) to continue to produce coal that qualifies for Section 45 tax credits; termination of the leases or other agreements related to such facilities; rulings by the courts on, interpretations by the IRS of and other official pronouncements on tax credit regulations adverse to our RC business; decreases in the coal available for treatment at Clean Coal's RC facilities; utility plant outages; seasonality; failure to sell or lease the RC facilities; inability to put into permanent operation our available RC facilities and obtain necessary agreements, permits and private letter rulings from the IRS; adverse market impacts that may result from IRS audits of entities that claim Section 45 tax credits on their tax returns; availability of raw materials and equipment for our businesses; intellectual property infringement claims from third parties; 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 our Annual Report on Form 10-K. 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.

## Overview

Pursuant to an Agreement and Plan of Merger, Advanced Emissions Solutions, Inc. ( ADES ), a Delaware company incorporated in 2011, replaced ADA-ES, Inc. ( ADA ) as the publicly-held corporation. As this periodic report pertains to the period ended June 30, 2013, and the reorganization was effective July 1, 2013, the term we , us and our means ADA for the periods through and including the period ended June 30, 2013, and ADES for the period after June 30, 2013. For further information, see Note 13 of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

The Company serves as the holding entity for a family of companies that provide emissions solutions to customers in the power generation and other industries. Through its subsidiaries and joint ventures, 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<sub>2</sub> and other emissions, maximize capacity and improve operating efficiencies to meet the challenges of existing and pending emission control regulations. We have three operating segments: RC (refined coal), EC (emission control) and CC (CO<sub>2</sub> capture).

The RC segment includes revenues from the lease or sale of RC facilities and RC sales which approximate the cost of raw coal acquired for RC facilities operated for Clean Coal's own account. The EC segment includes revenue from the supply of emissions control systems including activated carbon injection ( ACI ) systems to control mercury, dry sorbent injection ( DSI ) systems to control SO<sub>2</sub>, SO<sub>3</sub> and HCl and electrostatic precipitator ( ESP ) flue gas conditioning systems, the licensing of certain technology and provision of consulting services. The CC segment includes revenue from projects relating to the CO<sub>2</sub> capture and control market, including projects co-funded by government agencies, such as the DOE and industry supported contracts.

Our RC segment generates revenues through the lease or sale of RC facilities that produce RC intended to qualify for Section 45 tax credits to third party investors, as well as operating RC facilities and keeping the tax credits for our own and our partners' accounts. To date, 28 RC facilities have been placed-in-service through Clean Coal, ADA's RC joint venture with NexGen Refined Coal, LLC ( NexGen ), an affiliate of NexGen Resources Corporation, and with GSFS Investments I Corp. ( GSFS ), an affiliate of The Goldman Sachs Group, Inc. ( GS ). Unless Congress again extends the placed-in-service deadline for such facilities, which has passed, we have no ability to place any more RC facilities into service.

The primary drivers for many of our EC products and services are environmental laws and regulations impacting the electric power generation industry and other coal users. Environmental regulations, such as the 1990 Clean Air Act Amendments, the MATS regulations, various Maximum-Achievable Control Technology ( MACT ) standards including the Industrial Boiler MACT ( IBMACT ) regulations, the Cement MACT regulation, various state regulations and permitting requirements for coal-fired power plants are requiring electric power generators and others to reduce emissions of pollutants, such as particulate matter, SO<sub>2</sub>, NO<sub>x</sub>, mercury and acid gases. We are a key supplier of mercury control equipment and services, which includes ACI systems and chemical additives, to the EC market whose commercial equipment component first began in 2005 when several individual states began to require limits on mercury emissions. We also offer DSI systems to control SO<sub>2</sub> and acid gases such as HCl and SO<sub>3</sub>.

We conduct research and development efforts in CO<sub>2</sub> capture and control from coal-fired boilers and other technologies that we believe may have future commercial markets. In September 2010, we signed our second significant contract related to CO<sub>2</sub> capture with the DOE, for a project that is expected to continue through the end of 2014.

## Refined Coal

We are marketing our CyClean and M-45 technologies, services and equipment exclusively through ADA's joint venture Clean Coal.

#### Environmental Legislation and Regulations

Clean Coal's primary opportunity is based on the availability of Section 45 tax credits established by the American Jobs Creation Act of 2004, and as amended by the Emergency Economic Stabilization Act of 2008, the American Recovery and Reinvestment Act of 2009, and the Tax Relief and Job Creation Act of 2010, the last of which extended the placed-in-service deadline for the Section 45 tax credits from its original date to January 1, 2012. The 2013 tax credit amounts to \$6.59 per ton of RC and is expected to escalate annually through 2021. In December 2009, the Internal Revenue Service (the "IRS") issued the initial guidance as to the specifics concerning how the emissions reductions are to be measured and certified to demonstrate compliance necessary for RC production to qualify for the Section 45 tax credits. The IRS provided subsequent guidance on October 4, 2010 to address various issues that had arisen. Additionally, the IRS has published a number of PLRs that provide approval to specific taxpayers on matters related to the Section 45 tax credit issues addressed in the PLRs. Although the approval in each PLR only applies to the taxpayer and the specific project mentioned in the PLR, other taxpayers can gain an understanding on how the IRS interprets certain matters based on the conclusions reached in the PLR.

Use of any tax credits is subject to potential IRS audits of the entity that claims the credits on its tax return. If such use is challenged, negotiated/structured settlements may be reached with the IRS. In some cases, where the parties cannot reach agreement and the matter is litigated, court rulings may impact various aspects of the RC business including the viability of the market for Section 45 tax credits in general, the perceived risk involved in the allocation of Section 45 tax credits and thus the amount a third party would be willing to invest for the opportunity to produce RC and generate tax credits and the structure of contracts that we enter into to recognize value from our RC facilities.

### Technology License Agreements

ADA licensed to Clean Coal, on an exclusive basis, the CyClean technology in November 2006. In July 2012 ADA licensed the M-45 technology (the M-45 License ) to Clean Coal in order to leverage Clean Coal's operating expertise and take advantage of the other synergies that can be obtained by Clean Coal having the ability to provide and use either the CyClean or M-45 technology.

In addition, the M-45 License gives Clean Coal, on a limited, non-exclusive, non-transferable, royalty-bearing basis, the right to sublicense (under specified terms to be approved by ADA prior to the sublicense being granted) to limited utilities that purchase or have purchased RC produced using the M-45 technology, the right to use the M-45 technology under certain circumstances for the purpose of Mercury Only Emission Control .

The M-45 License term runs through the latest of the expiration of (i) the Section 45 tax credits, (ii) any similar tax credit subsequently enacted, after the effective date of the agreement up to within one year of the expiration of the Section 45 tax credits, which tax credits provide for the production of a coal-based fuel (pre-combustion) that emits, when combusted, a lower level of both NOx and mercury emissions, and (iii) the date on which Clean Coal and all sublicensees of the M-45 technology have permanently ceased to provide Mercury Only Emission Control.

Pursuant to the M-45 License, we receive royalties equal to (i) a percentage of the per-ton, pre-tax margin from RC produced with the M-45 technology from leased or sold RC facilities, (ii) a percentage of the Section 45 tax credits claimed by Clean Coal (or a Clean Coal affiliate), or their respective owners, on RC produced by a facility that Clean Coal does not sell or lease to a third party and instead operates to retain the Section 45 tax credits from that facility for its (or an affiliate's) own benefit, net of all directly allocable operating expenses and all utility payments incurred by Clean Coal (or an affiliate) in connection with the production and sale of such RC, and (iii) a percentage of the revenue, net of all direct expenses, received by Clean Coal as a direct result of Clean Coal's exercise of the license for Mercury Only Emission Control described above. ADA received \$10 million in prepaid royalty deposits as a result of attainment by Clean Coal of certain milestones. We have certain obligations to provide technical assistance to Clean Coal and its sublicensees during the term of the M-45 License, as well as certain obligations to protect and maintain the patents that underlie the M-45 technology and to indemnify Clean Coal against certain claims related to the technology. The income and expense related to these royalties are eliminated in consolidation of the financial results of Clean Coal.

### Leased and Operating RC Facilities

Clean Coal initially placed two RC facilities in service prior to the initial placed-in-service deadline of January 1, 2010 and demonstrated the required emission reductions for their RC product to qualify for the Section 45 tax credits. On June 29, 2010, Clean Coal signed agreements to lease these two RC facilities through its wholly owned subsidiaries (the Lessors ) to GS RC Investments, LLC ( GS RC ). In November and December 2011, Clean Coal, the Lessors and GS exchanged the leased RC facilities at each power plant with newly constructed, redesigned RC facilities which resulted in termination of the original leases and entry into new lease agreements (the Exchange

Transactions ). The two facilities are installed at two different power plants in the Midwest each of which operates two cyclone boilers burning Powder River Basin ( PRB ) coal from Wyoming.

GS RC also entered into supply agreements for each RC facility pursuant to which it supplies RC to the applicable power plant owner. Clean Coal Solution Services ( CCSS ), a Colorado limited liability company owned 50% by ADA and 50% by NexGen, operates and maintains the RC facilities under two Operating and Maintenance Agreements (subject to oversight by GS RC). CCSS also arranges for the purchase and delivery of certain chemical additives necessary for GS RC 's production of RC under the supply agreements. The term of each such agreement runs coincident with the leases.

In addition, pursuant to the Exchange Transactions, ADA, NexGen and two entities affiliated with NexGen provided GS RC with joint and several guaranties (the CCS Guaranties ) guaranteeing all payments and performance due under the agreements described above. ADA also entered into a contribution agreement with NexGen under which any party called upon to pay on a CCS Guaranty is entitled to receive contribution from the other party equal to 50% of the amount paid. GSFS, GS RC 's parent, provided Clean Coal with a guaranty as to the payment of all fixed rent payments under the leases, which, although terminable at any time, cannot be terminated without the substitution of such guaranty with another guaranty on similar terms from a creditworthy guarantor.

In March 2013 the parties amended and restated the Exchange Transaction lease agreements to change certain terms and timing of the lease payments. The payments are now due quarterly in advance and are subject to adjustments for inflation. Each lease has an initial non-cancellable term of two years and will automatically renew unless terminated at the option of the lessee for successive one-year terms through November 9, 2021 and December 10, 2021, as applicable. Revenues to Clean Coal are expected to remain at similar levels as seen under the prior written agreements. The parties also amended and restated the two Operating and Maintenance Agreements to provide for the payment of a fixed fee under the agreements instead of variable payments based on the production of RC.

Pursuant to an Exclusive Right to Lease Agreement, Clean Coal granted GSFS the exclusive right to lease additional RC facilities capable of producing up to approximately 12 million tons of RC (the Target Tons ) per year on pre-established terms. GSFS has exercised this right with respect to all but approximately 2 million of the Target Tons.

Clean Coal leased a third RC facility in the first quarter of 2012 to another entity related to GS. Clean Coal leased a fourth RC facility to another third party investor during the third quarter of 2012. All agreements included terms and conditions substantially similar to those applicable to initial leases for the first two leased RC facilities. On February 28, 2013, Clean Coal sold an RC facility to a new third party investor. The structure of the sale was similar to that of the initial leases and provided the buyer with the right to require Clean Coal to repurchase the RC facility for a nominal fee in certain situations. The terms of the sale included \$20 million paid immediately to Clean Coal and a combination of fixed and variable payments going forward. An additional \$5 million is to be paid to Clean Coal when the buyer receives an applied-for PLR from the IRS, which is expected later this year. In July 2013, two additional RC facilities were leased to entities related to GS with terms and conditions substantially similar to the first two leased RC facilities, bringing the total number of RC facilities leased or sold to seven. Clean Coal received more than \$14 million in prepaid rents in July related to these facilities which will be amortized to revenue over the terms specified in the agreements.

In addition to the six leased RC facilities and the RC facility sold to a third party investor, Clean Coal currently operates three additional RC facilities for its own account, resulting in its owners ability to claim the Section 45 tax credits for the RC produced during those operations.

With the six leased RC facilities, the RC facility sold to a third party investor and the three RC facilities currently operated by Clean Coal for its own account, there are currently ten RC facilities in routine operations at coal plants that, in the aggregate, have historically burned more than 25 million tons of coal per year. One of Clean Coal s goals is to place RC facilities at as many plants requiring large amounts of coal as possible. During the second quarter of 2013, RC facilities operated by Clean Coal for its own account produced 1.2 million tons of RC.

Clean Coal plans to retain and operate one or two of the currently operating RC facilities continuously for its own account and in the longer term a number sufficient to claim Section 45 tax credits for one of every five tons of RC produced by all RC facilities going forward. During the second quarter of 2013, the RC facilities operated for Clean Coal s account generated \$32 million in revenues from RC sales which were offset by \$32 million in raw coal costs and generated \$7.7 million in Section 45 tax credits that can be used to offset future tax expenses of its owners. ADA s portion of these credits amounts to \$3.3 million. Clean Coal is in negotiations to lease or sell several additional RC facilities with a goal to have all RC facilities in operation by the end of 2014 utilizing the CyClean and M-45 technologies.

In those cases where Clean Coal chooses to operate an RC facility for its own account, either on an interim basis or for the long-term, it receives the benefit of the Section 45 tax credits from the RC produced at the facility. As part of those operations Clean Coal purchases raw coal, refines the raw coal into RC and then sells the RC to the power plant, generally at the same price per ton, recognizing revenue from the RC sale and costs of revenue for the raw coal purchased. These amounts may be significant as the average per ton price for the raw coal purchased and RC sold has historically ranged from \$20 to \$40 per ton. In those operations Clean Coal also pays, recognizing as an expense, and

may also deduct for tax purposes, operational costs, a fee to the utility for coal handling and a fee for the land used to site the RC facility. For the RC facilities that Clean Coal operates for its own account, it incurs operating expenses of approximately \$3 per ton of coal treated and generates approximately \$7.50 per ton in tax benefits.

In those cases where Clean Coal chooses to lease or sell an RC facility to a third party investor, once the final utility site and the third party investor have been determined, it takes approximately six to twelve months to obtain environmental permits for full-time operation, secure necessary approvals from state Public Utility Commissions, and negotiate and complete all necessary contracts. PLRs may be needed from the IRS if requested by the third party investor, which may take several additional months to obtain after formal contracts are completed.



Closings of several deals with utilities and third party investors for our RC facilities were delayed in 2012 and the first half of 2013 for various reasons, including: permitting, regulatory approval, corporate financial restructuring of utilities or third parties involved in some aspect of the transaction, changes in plant ownership, changes and retirements of personnel involved in the negotiations, involvement of additional parties in the transactions, and uncertainties in the tax credit community. As our previous disclosures have indicated, because of the complexities of each RC deal and the number of externalities that are outside our direct control and involvement, we may continue to experience delays beyond our initial estimates of six to twelve months to close the transactions.

We expect that future transactions for RC facilities not presently operating may be either lease or sale transactions with the purchase price payable over time. Regardless of the form the final transaction structures will provide long-term economic benefits substantially similar to those provided by the prior lease transactions. However, the economics of each facility will be unique as the revenue and expected margins will differ from one RC facility to another depending upon, among other factors, the size of the power plant that the facility serves, the amount of RC produced at the plant and the expenses incurred, including the cost of chemicals, labor costs, negotiated payments to the utility, upfront prepaid rent payments and royalty payments for the license of certain technologies. As is generally the case in these transactions, the sale or lease of the RC facilities involves a relationship between the utility, a third party investor and Clean Coal. By buying or leasing the RC facility and producing RC, the third party investor becomes the producer of RC, receives the benefit of the annually escalating per ton Section 45 tax credit and is able to deduct depreciation and/or a portion or all of the lease payments. In return it pays, and may also deduct, a portion or all of the fees to the utility for coal handling and land use to site the RC facility and operational costs. In addition, the third party investor pays a mutually agreed combination of fixed and contingent rents or fixed rents only, to Clean Coal for the lease of the RC facility. In the case of a sale, the overall economics of the payments made are substantially similar to the fixed and/or contingent rents paid under the initial leases. In addition to the site and coal handling payments, the utility receives the benefit of the resulting mercury and NOx reductions which have an estimated value of between \$1.00- \$4.00 per ton of RC burned.

Since its inception, we have been considered the primary economic beneficiary of Clean Coal and have consolidated its accounts in our financial statements, but we do not consolidate the accounts of CCSS because NexGen controls the entity pursuant to the operating agreement of the entity. Clean Coal's total annual contribution to our operating income will ultimately depend on the utilities' use of coal in the generation of electricity, which use will likely fluctuate over the term of the Section 45 tax credits. In order to maintain its interest in Clean Coal, ADA is obligated to fund half of its operating costs and capital expenditures.

#### Status of Remaining RC Facilities

Our goal is to place into full time operations the remaining RC facilities as soon as possible with an expectation that all will be in operation by the end of 2014. For the remaining facilities, there are a number of possible locations all with different sizes and characteristics. As a result, it is difficult to provide explicit guidance at this time as to the timing, location and likelihood of their permanent placement. For example, we are holding five facilities in reserve for placement at five very large potential RC production sites. Each of these sites has its own unique set of circumstances and issues that will likely require some change in operations at the utility or other changes such as technology improvements, switch in coal rank, or obtaining a PLR from the IRS, in order for those facilities to begin full time operation. In this regard we have made significant progress in expanding the potential target market by extending our RC technologies beyond cyclone boilers and PRB coals. Clean Coal is currently operating two RC facilities using the M-45 technology at plants burning Gulf Coast lignite and one RC facility using the CyClean technology at a plant burning North Dakota lignite. In addition, tests have demonstrated the potential to apply these RC technologies to bituminous coals. Clean Coal has successfully conducted tests on an improvement to the M-45 technology (referred to as M-45-PC<sup>TM</sup> technology) that was certified by an independent professional engineer as eligible for the Section 45 tax credit in late 2012 and is available for use on pulverized coal ( PC ) boilers. The ability to use the M-45 technology

on PC boilers significantly increases the potential market for locations where the RC facilities could be located as PC boilers represent over 80% of the 1,200 electricity generating boilers in the U.S. and there are several plants where it may be possible to treat greater than five million tons of coal per year with a single RC facility. The tax credit rules further allows us to change the process by which coal is refined and use the RC facilities at plants other than those at which they were originally placed into service. We believe that the first RC facilities using M-45-PC technology could be put into full-time operation later this year.

We believe that once all new and existing RC facilities, other than those retained by Clean Coal and operated for its own account, are leased or sold to third party investors and become fully operational, they will achieve an annualized segment rental revenue rate of approximately \$200 million; this revenue figure excludes approximately \$250 million to \$300 million in ongoing coal sales and raw coal purchases for RC facilities that Clean Coal is expected to operate in the long-term for its own account. These revenue rates would be expected to eventually generate approximately \$100 million in segment income to the Company after payments to joint venture partners, including an estimated \$30 million in tax credits (the Company's share) to be generated by RC facilities operated by Clean Coal. The projected segment revenue and income are expected to continue through 2021.

From now through 2014, we expect leases and sales of new RC facilities to generate significant cash receipts from prepaid rent and upfront purchase price payments for Clean Coal. For the RC facilities that it retains and operates for its own account, Clean Coal will record operating costs, coal sales and costs of coal that may be significant. This will result in increased expenses and revenues over

and above the increased revenue recognized from the lease and sale of additional RC facilities and will reduce gross margin as a percent of total revenues. The ultimate benefit from these retained facilities is derived from the tax benefits they generate which amounts to approximately \$7.50 per ton of RC produced.

## Emission Control

Power companies have started to procure ACI and DSI systems to comply with new emission regulations and the Company is currently maintaining its market leading positions in both ACI and DSI awards. We continue to receive requests to evaluate mercury and acid gas control options at a number of plants. We expect to see additional ACI and DSI revenues as contracts are awarded on the outstanding proposals (see discussion below).

## Environmental Legislation and Regulations

Mercury has been identified as a toxic substance and, pursuant to a court order, the U.S. Environmental Protection Agency ( EPA ) issued regulations for its control from power plants in March 2005, which was known as the Clean Air Mercury Rule or CAMR. CAMR was ultimately declared invalid. On December 16, 2011 the EPA issued the MATS rule, a MACT-based hazardous pollutant regulation applicable to coal and oil-fired electric utility steam generating units ( EGU ), which provides for, among other provisions, control of mercury and volatile metals such as arsenic, selenium and control of acid gases such as HCl and other Hazardous Air Pollutants ( HAPs ). It took effect on April 16, 2012. The EPA issued the final rule for new source standards on March 28, 2013 although it is currently reconsidering certain aspects of the MATS relating to new source standards due to various lawsuits. We believe these lawsuits will not impact our ongoing business, which is focused on existing sources of HAPs.

The final MATS rule for existing HAP sources establishes standards for all HAPs emitted by coal and oil fired EGUs with a capacity of 25 megawatts or greater. Units with lower generating capacities will instead fall under the IBMACT rule with requirements to meet compliance levels scheduled to go into effect on January 31, 2016. The standards are based upon the average of the best performing 12% of existing applicable power plants. The MATS provides the option to use facility-wide averaging of 90 days to meet the limits for mercury emissions, which is 1.2 pounds per trillion BTU (1.0 pound per trillion BTU if 90 day averaging is used). This emission limit corresponds to 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 coals having a greater than 8,500 BTU per pound heat rate. For plants burning lower rank coals such as lignite, the emission limit is 4.0 pounds per trillion BTU. The EPA estimates that there are approximately 1,200 coal-fired units and 300 oil-fired units affected by the MATS. Existing sources must comply with the MATS standards by April 16, 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. Recent data suggests that state permitting authorities have granted most of the extension requests they have received.

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 Cement MACT regulation was initially finalized on August 6, 2010. On May 11, 2011, the EPA denied requests to issue an administrative stay on the Cement MACT and denied in part and granted in part various petitions to reconsider the final revised Cement MACT. The EPA published the final Cement MACT regulation on February 12, 2013 with compliance required by September 9, 2015. The standards for new kilns apply to facilities where construction, modification, or reconstruction commenced after May 6, 2009.

The Cement MACT requires cement plants to reduce HAPs by September 9, 2015 including 92% of mercury emissions and 83% of hydrocarbons emissions. This regulation could require ACI systems on up to 90 cement kilns in

the U.S., which are owned by approximately 15 companies. We have been engaged in several testing programs for cement companies to define their emissions and evaluate how ACI equipment and sorbents will work in that industry. The tests were designed to evaluate the effectiveness of collecting mercury and organics from cement kiln exhaust gas streams.

The EPA also issued a new IBMACT regulation for coal-fired boilers that provide mostly steam and/or electricity for industrial and institutional power needs with no more than 25 megawatts of electricity sold to the grid per year. The final regulation was issued on March 21, 2011, with compliance deadlines originally scheduled for early 2014. On December 23, 2011, the EPA issued proposed reconsiderations of certain aspects of the IBMACT, including clarification of applicability and implementation issues.

The final IBMACT rule which was published on January 31, 2013 could impact over 600 existing coal-fired industrial boilers, which have until January 31, 2016 to comply. The final emission limit of 5.7 pounds of mercury per trillion BTU of heat input for existing and 0.80 pounds per trillion BTU of heat input for new coal-fired industrial boilers on average requires approximately 50% capture of mercury from coal-fired boilers burning various coals. However, we believe the final IBMACT could significantly increase the market for DSI systems when considering the requirements to also limit HCl emissions to levels of 0.022 pounds per million BTU.

The Clean Air Act requires that all emission control-related regulations be met within three years from the final date the new rule is posted in the Federal Register, with the potential extension of one year granted by individual states on a case by case basis. We believe

that substantial long-term growth of the EC market for the electric power generation industry will most likely depend on how industry chooses to respond to the pending and new federal regulations. In general, all three of these regulations are less stringent than originally expected, meaning more flexibility for operators subject to the rules in choosing low capital expenditure ( CAPEX ) emissions control technologies and likely fewer forced plant retirements from having to install large CAPEX emission control equipment such as scrubbers and baghouses. We believe the MATS and MACT rules will create a large market for our emission control and RC products.

On December 15, 2009, the EPA issued an endangerment finding that triggered a Clean Air Act requirement that the agency regulate CO<sub>2</sub> emissions from stationary sources such as power plants. Industry and states have filed an extensive consolidated litigation before the U.S. Court of Appeals for the District of Columbia Circuit challenging numerous aspects of EPA's Greenhouse Gas ( GHG ) rules. The court is considering arguments regarding the EPA's guidance memo on the timing of GHG regulations, such as when GHGs become a regulated pollutant under the Clean Air Act and thus if and when New Source Review and Prevention of Significant Deterioration regulations would apply. On March 27, 2012, the EPA proposed its first new source performance standards for CO<sub>2</sub> emissions from new power plants as a result of a separate settlement with states and environmental groups in 2010.

#### Activated Carbon Injection and Dry Sorbent Injection Systems

ACI systems are currently the most established and accepted technology to specifically control mercury emissions and have been widely deployed to meet the existing state and new plant regulations. In addition to ACI systems for mercury control, we have developed and are providing commercial DSI systems that inject dry alkaline sorbents to control acid gases such as SO<sub>3</sub> and HCl. Our DSI technology is also used to control SO<sub>2</sub>, one of six criteria air pollutants. The use of DSI for SO<sub>3</sub> reduction in conjunction with ACI has also been shown to enhance the capture of mercury from bituminous coal-fired boilers.

In order to meet the expected demand in the ACI and DSI markets, on August 31, 2012, ADES's wholly owned subsidiary BCSI, LLC ( BCSI ) acquired the assets of Bulk Conveyor Specialist Inc., a leading privately held fabricator and supplier of DSI systems and other material handling equipment, and Bulk Conveyor Services, Inc. (together, Bulk Conveyor ). This acquisition provided us with the capacity, experience and resources to provide customers with additional solutions for emissions compliance and the addition of Bulk Conveyor's manufacturing facility also allowed us to expand our capacity for supplying ACI systems. Currently BCSI is executing a large fleet utility contract for several DSI systems for SO<sub>3</sub> control and has several outstanding proposals for additional SO<sub>3</sub> and HCl control systems.

Since 2005, we have completed or are in the process of executing awarded projects for approximately 80 ACI systems intended to control mercury emissions from approximately 90 coal-fired EGU boilers. The ACI and DSI capital equipment we provide for the larger utility coal-boilers generally ranges from approximately \$600,000 to \$2 million per coal-fired boiler unit and in total we expect the MATS rule to create a market in excess of \$1 billion for the combined market for ACI and DSI systems. DSI systems provide a low CAPEX alternative to scrubbers for meeting certain provisions of the MATS. The EPA predicts that about 200 DSI systems will be sold by 2015.

Since the MATS market commenced in 2011, ADA has won or received letters of intent to award contracts currently valued at approximately \$80 million for ACI and DSI systems, with most of these systems scheduled to be delivered by the end of 2014. There has been indication that some generators have obtained extensions for MATS compliance, which could result in the consummation of these sales being extended for an additional one to two years. As an indication of progress in the development of this market, the Company is in discussion on or submitting bids on approximately \$150 million of ACI and DSI systems.

## Mercury Control Additives

Another ADA mercury-only coal treatment technology (formerly referred to as Enhanced Coal) is in the initial stages of being marketed by the Company as M-Prove to meet mercury requirements currently existing in 19 states and the MATS requirements set to go into effect in 2015. Since 2004, we have been working with Arch Coal to explore certain unique characteristics of some types of coals mined by Arch Coal that allow the coal to be burned with lower mercury emissions. We believe that a technical breakthrough that involves the application of proprietary chemicals to Western coals such as PRB reduces emissions of mercury when this pre-combustion additive is burned at power plants. We believe M-Prove may provide a benefit to the customer of up to \$4 per ton of coal burned when used on Western coals, of which U.S. power plants burn up to 600 million tons per year.

We provide M-Prove through two channels (1) through Arch Coal for use on PRB coal at the mine and (2) through direct coal treatment applied on-site at power plants. In June 2010, we entered into a Development and License Agreement (the License Agreement) with Arch Coal giving them an exclusive, non-transferable license to use certain technology through the application of ADA's proprietary pre-combustion additive to Arch Coal's PRB mined coal. We expect that use of M-Prove will help utilities meet the mercury emissions requirements in the MATS. The initial demonstration of coal treated at the mine and shipped by rail to a power plant produced promising results, and we have completed several additional demonstrations of M-Prove at specific power plants. We are encouraged that some utilities are already purchasing equipment to apply chemical additives to their coal, and we expect demand for M-Prove to increase in 2015 when additional utilities will be required to control their mercury emissions.

Under the License Agreement, we are entitled to royalties of as much as \$1 per ton of a portion of the premium for the treated coal sold by Arch Coal, depending upon the premium Arch Coal is able to charge on sales of such coal. Any royalty ultimately payable under the License Agreement will first be subject to credit to Arch Coal of an amount equal to the initial license fee of \$2 million, other development and operational costs paid by Arch Coal plus a rate of return on such payments.

In November 2012, we entered into a related Supply Agreement under which Arch Coal will purchase the additives used in conjunction with the technology licensed under the License Agreement exclusively from us, and we will supply Arch Coal with the additives it needs. For customers that prefer to have the coal treatment applied on-site at their plants, the Company will provide the technology directly to the power plants.

The MATS will likely create a market for chemicals to be used for the reduction in mercury emissions for much of the 600 million tons of western coals burned annually. One of the advantages of the chemical used in M-Prove is that it does not use bromine which is the basis of many other competing chemical additive technologies. The power industry is beginning to experience corrosion issues in their plants that they attribute to bromine that was used to enhance the capture of mercury. Thus, we have found the industry open to considering a new technology that could help avoid what could be very expensive repairs on the plants. In October 2012 we were awarded the first of what we believe will be a family of patents designed to protect M-Prove both in the U.S. and abroad.

#### Flue Gas, Injection Systems, Chemicals and Services

We have developed and deployed technologies for conditioning flue gas streams from coal-fired combustion sources that allow existing air pollution control devices such as ESPs to operate more efficiently without the use of traditional SO<sub>3</sub> additives, which have been shown to be detrimental to effective mercury control. Through various suppliers and contractors, we manufacture engineered systems for each individual application. The systems mix, pump and monitor the feed of proprietary chemical blends. The liquid chemical blends are applied to the flue gas streams by a pressurized system of specially designed lances and nozzles. 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 (DSI systems), activated carbon products or other high-resistivity materials.

#### Other Consulting Services

We also offer consulting services to assist electric power generators and others in planning and implementing strategies to meet the new and increasing government emission standards requiring reductions in SO<sub>2</sub>, NO<sub>x</sub>, particulates, acid gases and mercury. This includes demonstrations of our commercial products. We often receive funding for consulting and a portion of our development and testing activities from industry partners that have a strategic interest in the technology.

#### CO<sub>2</sub> Capture

In addition to our two key growth areas, RC and EC, we continue to demonstrate our position as a premier developer of innovative clean energy technologies. We expect that CO<sub>2</sub> capture technologies may be required to control CO<sub>2</sub> emissions from coal-fired power plants in the future. This expectation is supported by the fact that the EPA has

announced that it will release standards for greenhouse gas emissions for new sources in the near future and that it will provide draft regulations for existing sources as early as next June. We see this as an opportunity and continue to develop technologies to address the long-term needs of our customers to reduce CO<sub>2</sub> from their existing and new plants.

In 2010 we began the first field tests of our CO<sub>2</sub> control technology on a \$3.8 million program co-funded by the DOE, as well as several major utility companies. The initial results at a plant confirmed the promising performance we had demonstrated in our laboratory. The pilot plant was moved to another plant for additional testing.

In October 2010, we began work on a second major CO<sub>2</sub> project, which is expected to run for a total of 51 months to develop a full-scale conceptual design and validate the design at the pilot-scale, which is a key step in the technology development process. We are the prime contractor for the approximately \$20.5 million project (including expected contributions by other industry partners) administered by the DOE's National Energy Technology Laboratory which is providing \$15 million of the funding. The project provides funding to advance our commercialization plan for regenerable solid-sorbent technology.

In June 2012, we initiated the fabrication and construction phase for the pilot plant which will treat a slipstream of flue gas equivalent to that generated from producing one megawatt of electricity. We anticipate that DOE funded CO<sub>2</sub> programs will continue to represent an important component of the revenue stream of the Company over the next several years. We are considering different potential future commercial markets for carbon capture technology including producing CO<sub>2</sub> for use in enhanced oil recovery. This technology appears to offer potential cost and energy advantages over competing liquid-solvent-based technologies.



Results of Operations 2nd Quarter and YTD 2013 versus 2nd Quarter and YTD 2012

The following discussion should be read in conjunction with our unaudited consolidated financial statements and related notes thereto included elsewhere in this Form 10-Q.

Revenues totaled \$58.9 million and \$127.2 million for the three and six months ended June 30, 2013, respectively, versus \$52.5 million and \$70.7 million for the three and six months ended June 30, 2012, respectively, representing an increase of 12% and 80% for the quarter and year to date. Our RC segment revenue increased primarily due to the increased rental income from RC facilities we leased or sold to third parties and increased RC sales from other facilities operated by Clean Coal prior to being leased or sold to third parties. The increase is also due to an increase in our EC segment revenues. We expect overall revenues and costs for 2013 to be somewhat lower than for 2012 given our plans to sell or lease additional RC facilities which would reduce RC sales and raw coal costs.

Cost of revenues increased by \$3.3 million and \$48 million or 7% and 81% for the three and six months ended June 30, 2013, respectively, from the same periods in 2012 primarily as a result of costs of coal purchased for operations by Clean Coal and operating costs related to RC facilities operated by Clean Coal. In addition, costs increased in the EC segment by 215% and 210% to \$9.7 million and \$16 million for the three and six months ended June 30, 2013, respectively, due to the increased work on contracts awarded for ACI and DSI systems in the first half of 2013.

Gross margins were 18% and 16% for the three and six months ended June 30, 2013, respectively, compared to 14% and 16% for the same periods in 2012. The increase is reflective of an increase in RC facilities leased or sold to third parties and an increase in activity in the EC segment related to the MATS market. If the RC sales and raw coal purchases of \$31.8 million and \$76.7 million for the three and six months ended June 30, 2013, respectively, and operating costs of \$4.4 million and \$10.9 million for the three and six months ended June 30, 2013, respectively, related to RC produced for Clean Coal's account, which will not continue with respect to any facilities after they are leased or sold, are subtracted from the revenue and cost of revenues, adjusted gross margins would have been 55% and 61% for the three and six months ended June 30, 2013, respectively, compared to similarly adjusted gross margins of 81% and 79% for the same periods in 2012. The revenues and cost of revenues for the three and six months of June 30, 2012 include RC sales and raw coal purchases of \$37.7 million and \$47.5 million, respectively, and operating costs of \$4.6 million and \$7 million, respectively, related to RC produced for Clean Coal's account. As expected, the decrease in adjusted gross margin for the current period is a result of the increase in equipment sales in our EC segment which carries a lower margin than RC revenues. Adjusted gross profit margin percentage is a non-GAAP financial measure which is used to provide investors with greater transparency with respect to the effect on gross margin from Clean Coal's operation of certain RC facilities for its own account. We believe this non-GAAP financial measure provides meaningful supplemental information for investors regarding the performance of our business and the effect on gross margin of the operation of these RC facilities by Clean Coal for its own account.

For the near term, we expect the lease and sale of RC facilities to represent an increasing source of revenues, for which the anticipated gross margins are higher than our EC and CC segments. As a result, we expect the gross margin for fiscal year 2013 to be higher than the overall margin realized in 2012.

#### Refined Coal

Revenues in our RC segment totaled \$44.2 million and \$102.3 million for the three and six months ended June 30, 2013, respectively, compared to \$48.4 million and \$63.5 million for the three and six months ended June 30, 2012, respectively, representing a decrease of 9% for the quarter and an increase of 61% for the year to date. The decrease in the current quarter is primarily due to the lower per ton cost of coal processed and sold for Clean Coal's own account. Rental income from the leased and sold RC facilities totaled \$11.6 million and \$23.9 million for the three and six

months ended June 30, 2013, respectively, compared to \$10.6 million and \$16 million for the same periods in 2012. Tonnage related to the leased or sold facilities totaled 2.6 million tons and 5.8 million tons for the three and six months ended June 30, 2013, respectively, compared to 2.6 million tons and 4.1 million tons for the same periods in 2012. RC coal sales totaled \$31.8 million and \$76.7 million for the three and six months ended June 30, 2013 compared to \$37.7 million and \$47.5 million for the same periods in 2012.

Clean Coal incurs the operating costs for the RC facilities operated for its own account and retains for its owners the tax credits generated from the approximately 1.2 million tons and 3.1 million tons produced for its own account during the three and six months ended June 30, 2013, respectively compared to 1.2 million tons and 1.4 million tons during the same periods in 2012. The decline in tonnage produced from the first quarter of 2013 reflects a seasonally weaker energy demand period as well as downtime taken by the host utilities where our RC facilities operate. We expect our quarterly revenues to continue to fluctuate based on seasonal variations in electricity demand as well as planned and unplanned outages required by the power plants for equipment repair and maintenance. On an ongoing basis, we expect the seven RC facilities leased or sold to third party investors to generate more than \$75 million in revenue per year now through 2021.

Cost of revenues for the RC segment totaled \$36.2 million and \$87.6 million for the three and six months ended June 30, 2013, respectively, compared to \$41.9 million and \$54 million for the same periods in 2012. Costs for the six months of 2013 increased due primarily to the cost of coal acquired to operate RC facilities which cost approximates the revenues realized on its sale as noted above. We expect future RC margins for the RC facilities leased or sold to others to be at a level near 95%.

RC segment profits increased by \$2.8 million or 57% and \$7 million or 106% for the three and six months ended June 30, 2013, respectively, compared to the same periods in 2012 primarily as a result of the additional RC facilities leased and sold during 2013, offset by the costs of operating certain RC facilities for our own account and one-time transactional costs incurred as we continue to work through moving the placed-in-service facilities to full-time, long-term operations. These amounts are prior to the allocation of such profits to the non-controlling interests of Clean Coal.

### Emission Control

Revenues in our EC segment totaled \$12 million and \$20.8 million for the three and six months ended June 30, 2013, respectively, compared to \$4.0 million and \$6.7 million for the same periods in 2012, representing an increase of 203% and 209% for the quarter and year to date primarily due to increased sales of ACI and DSI systems and the recognition of revenues for previously awarded sales contracts as well as additional equipment sales revenues resulting from our acquisition of the assets of Bulk Conveyor in August 2012. Revenues from the EC segment for the six months ended June 30, 2013 were comprised of sales of ACI and DSI systems and services (84%), consulting and demonstration services (15%) and flue gas chemicals and services (1%) compared to 62%, 32%, and 6%, respectively, for the same periods in 2012. We expect our EC segment revenues related to ACI and DSI systems to continue to grow significantly in 2013 as we expect utilities, cement plants and industrial boilers to continue placing orders in response to the MATS and other MACT regulations. We expect our gross margin percentage for our EC segment for 2013 will approximate 20%.

Our consulting revenues totaled \$2 million and \$3 million for the three and six months ended June 30, 2013, respectively, compared to \$1 million and \$2.1 million for the same periods in 2012, representing an increase of 91% and 38% from the same periods in 2012 as we continued demonstrations and other work related to the MATS. We expect our consulting revenue to continue to be a significant part of EC revenues during 2013 as customers continue to seek alternatives on how best to comply with the MATS.

As of June 30, 2013, we had contracts in progress for work related to our EC segment totaling \$33.2 million, which we expect to recognize as revenue starting in the last half of 2013 and the remainder in 2014 and 2015. Our ACI and DSI systems revenues totaled \$9.9 million and \$17.4 million for the three and six months ended June 30, 2013, respectively, representing an increase of 261% and 319% compared to the same periods in 2012. The change was primarily due to increased sales of ACI and DSI systems and the recognition of revenues on previously awarded sales contracts as well as revenues from BCSI.

Cost of revenues for the EC segment increased by \$6.6 million and \$10.8 million or 215% and 210%, respectively, for the three and six months ended June 30, 2013, respectively, compared to the same periods in 2012, primarily as a result of the increased revenue-generating activities from our ACI and DSI system sales. Gross margins for the EC segment were 19% and 23% for the three and six months ended June 30, 2013 compared to 22% and 23% for the same periods in 2012.

EC segment profits increased by \$1.6 million and \$3.2 million for the three and six months ended June 30, 2013, respectively, compared to the same periods in 2012. The increase was primarily a result of increased levels of business from recent contract awards and a reduction in overhead costs compared to 2012.

## CO2 Capture

Revenues in our CC segment totaled \$2.7 million and \$4.2 million for the three and six months ended June 30, 2013, respectively, representing an increase of \$2.5 million and \$3.7 million from the same periods in 2012, primarily due to the billing milestones for these projects. We had outstanding DOE contracts, including anticipated industry cost share in progress totaling \$8.5 million as of June 30, 2013. We expect to recognize approximately \$5.5 million from these contracts during the remainder of 2013 if the anticipated schedule of activities is maintained. We are seeking additional cost share participants for the remaining work under the contracts.

Cost of revenues for the CC segment increased by \$2.4 million and \$3.5 million for the three and six months ended June 30, 2013, respectively, primarily related to the increase in work being performed under these projects. Gross margins for this segment were 10% and 12% for the three and six months ended June 30, 2013, respectively, compared to 58% for both periods in 2012. The Company records its estimated cost share portion of the DOE contracts as research and development ( R&D ) expense. The margin amounts shown are net of that allocation to R&D expense. The decrease in gross margin from 2013 to 2012 is due primarily to the increase in the use of subcontractors and purchasing of equipment, both of which typically have lower cost mark-ups than our internal labor under these contracts. Lower cost share participation from third parties also contributed to higher costs and lower margins. We expect the overall gross margin for the CC segment for fiscal year 2013 to be lower than the levels achieved in 2012, due to our likely share of costs and the mixture of direct costs (labor versus equipment and subcontractors) and indirect costs associated with this segment.

CC segment profits decreased by \$332,000 and \$474,000 for the three and six months ended June 30, 2013, respectively, compared to a decrease of \$4,000 and increase of \$44,000 for the same periods in 2012. The decrease was primarily the result of limited cost share participation by others so far this year and greater use of subcontractors and purchasing of equipment for construction of the pilot-scale technology validation unit required to further develop our CO2 capture technology.

Our contracts with the government are subject to audit by the federal government, which could result in adjustments to previously recognized revenue. Our historical experience with these audits has not resulted in significant adverse adjustments to amounts previously received; however the audits for the years 2005 and later have not been finalized. Revenues recognized from 2005 through 2012 that are subject to government audit totaled approximately \$31 million. In addition, we had \$8.5 million of remaining unearned amounts under contracts subject to audit as of June 30, 2013. We believe, however, that we have complied with all requirements of the contracts and future adjustments, if any, will likely not be material. In addition, the federal government must appropriate funds on an annual basis to support DOE contracts, and funding is always subject to unknown and uncontrollable contingencies.

#### Other Items

General and administrative expenses increased by \$4.1 million and \$7.7 million or 101% and 101% to \$8.1 million and \$15.4 million for the three and six months ended June 30, 2013, respectively, compared to the same periods in 2012. The increase is primarily due to increased compensation expense from new executive incentive plan awards approved by the Board of Directors in May 2013, increased sales, marketing, bid and proposal staff and activities, increased occupancy costs from our expanded space, the addition of activities of BCSI and increased overhead and transactional costs of Clean Coal.

We incur R&D expenses not only on direct activities we conduct but also by sharing a portion of the costs in the government and industry programs in which we participate. Total R&D expense decreased by \$41,000 or 7% and \$258,000 or 22% for the three and six months ended June 30, 2013, respectively, compared to the same periods in 2012. The higher costs in 2012 are related to additional costs to prepare for growth in the delivery of our ACI and DSI systems, as well as technology development costs related to the M-45 RC activities. We continue to anticipate that our future R&D expenses will grow for DOE funded CO2 work that we perform over the next several years and for other technology development we choose to pursue.

We had other income including interest of \$165,000 and \$235,000 for the three and six months ended June 30, 2013, respectively, compared to \$42,000 and \$141,000 for the same periods in 2012. We recognized \$676,000 and \$1.4 million in expenses related to royalty payments to Norit Americas, Inc. and Norit International N.V. f/k/a Norit N.V. ( Norit ) for the three and six months ended June 30, 2013, respectively, compared to \$469,000 and \$753,000 for the same periods in 2012. We expect that these royalty payments to Norit will amount to between approximately \$2 million and \$4 million per year for the near future. We had interest expense of \$248,000 and \$631,000 for the three and six months ended June 30, 2013, respectively, compared to \$431,000 and \$901,000 for the same periods in 2012. The expense in 2013 is related to interest paid on the deposit repayment made to GS RC and due to the deferred gain resulting from Clean Coal's tax treatment of leased and sold RC facilities. The 2012 amount is related to the line of credit agreements and the deferred gain resulting from Clean Coal's tax treatment of leased RC facilities.

The net operating loss from continuing operations before income from non-controlling interests was \$340,000 for the six months ended June 30, 2013 compared to a net operating loss of \$985,000 for the same period in 2012. The decrease in the net operating loss in 2013 is due in large part to the increase in activity in all three of our segments.

## Liquidity and Capital Resources

### Working Capital

Our principal sources of liquidity are cash on hand and our cash flows from RC activities and other operations. We had consolidated cash and cash equivalents totaling \$12.3 million at June 30, 2013 compared to consolidated cash and cash equivalents of \$9.7 million at December 31, 2012. The cash on hand amounts reported exclude \$3.1 million and \$1.6 million of certificates of deposits which are included in investments in securities in the consolidated balance sheets at June 30, 2013 and December 31, 2012 that generally support letters of credit provided as security for various purposes.

At June 30, 2013, we had a working capital deficit of \$18 million compared to a working capital deficit of \$24.1 million at December 31, 2012. The decrease in deficit was in part due to an increase in cash and cash equivalents from the sale of an RC facility and the repayment of the outstanding balance on Clean Coal's line of credit. In addition, included in the June 30, 2013 amount are \$7.2 million in deposits from GSFS on RC facilities and \$23.4 million in deferred revenues which will not require the use of cash but will generate revenue when amounts are earned. The deposit amount from 2012 decreased \$14 million, which included \$9.3 million transferred to deferred revenue and \$4.7 million returned to GSFS in March 2013.

On February 28, 2013, Clean Coal sold an RC facility to a new third party investor. The terms of the sale included \$20 million paid immediately to Clean Coal and a combination of fixed and variable payments going forward. An additional \$5 million is to be paid to Clean Coal when the buyer receives an applied for PLR from the IRS, which is expected later this year. In July 2013 two additional RC facilities were leased which resulted in more than \$14 million in upfront cash payments to Clean Coal and will result in us no longer incurring more than \$8 million in annual operating expenses that Clean Coal previously incurred while operating one of these facilities.

Our ability to generate the financial liquidity required to meet ongoing operational needs and to meet our obligations will likely depend upon our ability to maintain a significant share of the market for mercury control equipment, the continued operation of the RC facilities leased or sold to third parties to date, success in the sale or lease of additional RC facilities to third party investors and our ability to raise additional financing. We believe, with the lease of six RC facilities to date, and the sale of an additional RC facility, that we have sufficient sources of working capital to meet the operational needs of the Company for the next twelve months. Further, we are in discussions to secure a line of credit to support working capital and letter of credit needs for our rapidly growing EC business.

We have recorded long-term liabilities of \$14.3 million for deferred revenue, accrued warranty, and other liabilities as of June 30, 2013. Our stockholders' deficit was \$42.3 million as of June 30, 2013 compared to \$40.1 million as of December 31, 2012. The increase in stockholders' deficit is due to the net loss and is partially offset by the net income attributable to the non-controlling interests for 2013.

#### Clean Coal Related Items

Clean Coal, our joint venture with NexGen, placed two RC facilities into service in 2010 (which were exchanged for two newly constructed, redesigned RC facilities in November and December 2011), which are leased to a third party. In 2012, two additional RC facilities were leased, one to the lessee of the first two facilities and one to a new third party investor. In addition, in February 2013, an RC facility was sold which Clean Coal had been previously operating for its own account. In July 2013, two additional RC facilities, one of which had previously been operating for Clean Coal's own account, were leased to entities related to GS, bringing the total number of RC facilities currently leased or sold to seven. On an ongoing basis, we expect our currently leased and sold RC facilities to generate more than \$75 million in revenue per year from now through 2021 based on their operations and periodic payments we expect to receive. We expect by the end of 2013 to have additional RC facilities under lease or sold such that total revenues from these activities will be at a run-rate of over \$100 million per year and be at a level of producing pre-tax cash flows of as much as \$50 million per year to ADA. We would expect those levels to continue through 2021, the present term of the Section 45 tax credit, with an opportunity to double those amounts by the end of 2014 as we look to have all of our RC facilities operating on a continuous basis and leased or sold by that time. We believe that once most of the RC facilities are leased or sold to others and become fully operational, they will achieve an annualized segment rental revenue rate of approximately \$200 million; excluding the approximately \$250 million to \$300 million in ongoing coal sales and raw coal purchases from RC facilities that Clean Coal is expected to operate in the long-term for its own account. These revenue rates would be expected to generate approximately \$100 million in segment income to the Company after payments to minority partners, including an estimated \$30 million in tax credits apportioned to the Company to be generated by RC facilities operated by Clean Coal.

#### Other Liquidity and Capital Resource Items

Our trade receivables balance is comprised of both amounts billed to customers as well as unbilled revenues that have been recognized. As of June 30, 2013 our trade receivables balance was \$18 million compared to \$11 million at December 31, 2012. Our trade receivables balance was higher at June 30, 2013 compared to December 31, 2012

primarily due to the nature and timing of our progress on contracts as impacted by our billing milestones for our increased ACI and DSI systems contracts.

We had net current deferred tax assets of \$2.5 million and long-term deferred tax assets of \$41.7 million as of June 30, 2013 compared to net current deferred tax assets of \$2.3 million and long-term deferred tax assets of \$37.2 million as of December 31, 2012. The current period tax rate used to calculate deferred income taxes reflects our estimate of our full-year tax rate. We believe that our effective tax rate may vary significantly quarter to quarter as actual earnings or losses are realized and tax credits are generated.

The current and long-term amounts for both periods have been reduced to zero by recording a valuation allowance as discussed in Note 11 to the consolidated financial statements. Management determined that it was necessary to record the valuation allowance against the Company's deferred tax assets after considering the positive and negative evidence regarding the potential for ultimate realization of the net deferred tax assets.

Cash flows provided by operations totaled \$11.8 million for the first six months of 2013 compared to cash flows used in operations of \$13.6 million for the same period in 2012. The increase in operating cash flows primarily resulted from increases in deferred revenues and other liabilities of \$16.4 million, accounts receivable of \$7 million and accounts payable of \$3.6 million, and was offset by a decrease in deposits of \$4.7 million. These changes in our operating assets and liabilities correspond to the facility leasing and sale activities and the nature and timing of our procurement and billing cycle and development activities. In addition, adjustments related



to non-cash operating activities included expenses paid with stock and restricted stock of \$982,000, depreciation and amortization of \$2.8 million and non-controlling interests in Clean Coal of \$5 million, each of which increased our cash flow from operations.

Net cash used in investing activities was \$3.2 million for the six months ended June 30, 2013 compared to \$7.1 million for the same period in 2012. The cash used consisted primarily of purchases of equipment and leasehold improvements.

Cash used in financing activities was \$6.1 million for the six months ended June 30, 2013 compared to \$2.9 million provided by financing activities for the same period in 2012. The cash used consisted of net payments on Clean Coal's line of credit of \$3 million, distributions to non-controlling interests of \$2.9 million and payments on notes payable of \$277,000.

### Critical Accounting Policies and Estimates

**Revenue Recognition** We follow the percentage of completion method of accounting for all significant contracts excluding RC leases, government contracts, coal and chemical sales and technology license royalties. The percentage of completion method of reporting income takes into account the estimated costs to complete and estimated gross margin for contracts in progress. RC base rents, which are fixed, are recognized over the life of the lease. RC contingent rents are recognized as they are earned. We recognize revenue on government contracts generally based on the time and expenses incurred to date. Royalties from technology licenses are recognized when earned.

Significant estimates are used in preparation of our financial statements and include:

our warranty costs;

our percentage of completion method of accounting for significant long-term contracts, which is based on estimates of gross margins and of the costs to complete such contracts;

stock compensation costs related to performance share unit awards;

the period over which we estimate we will earn up-front license payments; and

estimated future royalty obligations associated with our settlement with Norit.

In addition, amounts invoiced for government contracts are subject to change based on the results of future audits by the federal government. We have not experienced significant adjustments in the past, and we do not expect significant adjustments will be required in the future. We also use our judgment to support the current fair value of goodwill and other intangible assets of \$3.8 million in our consolidated balance sheets. Management believes the value of other recorded intangibles is not impaired, although market demand for our products and services could change in the future, which would require a write-down in recorded values. As with all estimates, the amounts described above are subject to change as additional information becomes available, although we are not aware of anything that would cause us to believe that any material changes will be required in the near term.

Under certain contracts we may grant performance guaranties or equipment warranties for a specified period and the achievement of certain plant operating conditions. In the event the equipment fails to perform as specified, we are

obligated to correct or replace the equipment. Estimated warranty costs are recorded at the time of sale based on current industry factors. The amount of the warranty liability accrued reflects our best estimate of expected future costs of honoring our obligations under the warranty section of each contract. We believe the accounting estimate related to warranty costs is a critical accounting estimate because changes in it can materially affect net income, it requires us to forecast the amount of equipment that might fail to perform in the future, and it requires a large degree of judgment.

Income taxes are accounted for under the asset and liability approach. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of differences between the carrying amounts of assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period when the change is enacted. At each reporting date, management reviews deferred tax assets and liabilities and any related valuation allowance and, if necessary, revises them to reflect changed circumstances. In a situation where recent losses have been incurred, the accounting standards require convincing evidence that there will be sufficient future taxable income to realize deferred tax assets. Deferred tax assets have been reduced to zero by a valuation allowance because, in the opinion of management, it is more likely than not that all of the deferred tax assets will not be realized. A change in laws can have a material effect on the amount of income tax we are subject to. We are not aware of anything that would cause us to believe that any material changes will be required in the near term.

We recognize all share-based payments, including grants of stock options, restricted stock units, performance share units and employee stock purchase rights in our financial statements based upon their respective grant date fair values. The fair value of each

employee stock option and employee stock purchase right is estimated on the date of grant using an option pricing model that meets certain requirements. We currently use the Black-Scholes option pricing model to estimate the fair value of our stock options and stock purchase rights. The Black-Scholes model meets the requirements of FASB Topic 718 but the fair values generated by the model may not be indicative of the actual fair values of our equity awards, as it does not consider certain factors important to those awards to employees, such as continued employment and periodic vesting requirements. The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life and risk-free interest rate. We use a historical volatility rate on our stock options. The fair value of our restricted stock and performance share units are based on the closing market price of our Common Stock on the date of grant. If there are any modifications or cancellations of the underlying securities, we may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense. To the extent that we grant additional equity securities to employees or we assume unvested securities in connection with any acquisitions, our stock-based compensation expense will be increased by the additional unearned compensation resulting from those additional grants or acquisitions.

**Consolidation of Subsidiaries** Since inception, ADA has been considered the primary economic beneficiary of the joint venture with Clean Coal and, therefore, we have consolidated its accounts with ours.

We hold a 50% interest in CCSS. However, we control only two of the five seats on the board of managers and our equity partner controls the other three seats. Therefore, we believe our 50% interest does not constitute control of CCSS and we have recorded our interest under the equity method.

#### Recently Issued Accounting Policies

None.

#### Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements as of June 30, 2013.

#### Item 4. Controls and Procedures

We are required to maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to management, including the principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Management necessarily applied its judgment in assessing the costs and benefits of such controls and procedures, which, by their nature, can provide only reasonable assurance regarding management's control objectives.

#### Evaluation of Disclosure Controls and Procedures

Our management, with the participation and under supervision of our Chief Executive Officer and Chief Financial Officer, has reviewed and evaluated the effectiveness of the Company's disclosure controls and procedures as defined in the Securities Exchange Act of 1934 Rules 13a-15(e) and 15d-15(e), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on their review and evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are adequate and effective to ensure that material information related to our financial statements are made known to them by others in a timely manner, particularly during the period in which this quarterly report on Form 10-Q was being prepared, and that no changes are required at this time.

#### Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the most recently completed fiscal quarter that have materially affected, or are likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

There are no updates to our risk factors as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2012.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

Not applicable

Item 4. Mine Safety Disclosures

Not applicable

Item 5. Other Information

Not applicable

Item 6. Exhibits

3.1\* Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc.

- 3.2\* Bylaws of Advanced Emissions Solutions, Inc.
- 4.1\* Specimen of Stock Certificate
- 10.61\* Form of Performance Share Unit Award under Amended and Restated 2007 Equity Incentive Plan, as amended
- 31.1\*\* Certification of Chief Executive Officer. Pursuant to 17 CFR 240.13a-14(a) or 17 CFR 240.15d-14(a)
- 31.2\*\* Certification of Chief Financial Officer Pursuant to 17 CFR 240.13a-14(a) or 17 CFR 240.15d-14(a)
- 32.1\*\* Certification of Chief Executive Officer. Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2\*\* Certification of Chief Financial Officer Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101 The following financial statements, from Advanced Emissions Solutions, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 formatted in eXtensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets; (ii) Consolidated Statements of Operations; (iii) Consolidated Statements of Cash Flows; (iv) Consolidated Statements of Stockholders' Deficit; and (v) Notes to the Consolidated Financial Statements. The information in Exhibit 101 is furnished and not filed, as provided in Rule 402 of Regulation S-T.

\*Filed herewith.

\*\*These certifications are furnished and shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

SIGNATURES

In accordance with the requirements of the Securities Exchange Act of 1934, the Registrant caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Advanced Emissions Solutions, Inc.

Registrant

Date: August 9, 2013 /s/ Michael D. Durham  
Michael D. Durham

President and Chief Executive Officer

(Principal Executive Officer)

Date: August 9, 2013 /s/ Mark H. McKinnies  
Mark H. McKinnies

Chief Financial Officer

(Principal Financial and Accounting Officer)

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