



Advanced Emissions Solutions, Inc.  
Advancing **Cleaner** Energy

# Q416 Earnings Call



**March 14, 2017**

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# Safe Harbor



This presentation includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, which provides a "safe harbor" for such statements in certain circumstances. The forward-looking statements include statements or expectations regarding future growth, strategic review of alternatives for our Emissions Control ("EC") business, amount and timing of production of Refined Coal ("RC"), Tinum Group, LLC and Tinum Services, LLC cash flow and ability to make distributions and Tinum Group's ability to lease or sell remaining RC facilities; future revenues, expenses, cash flow, liquidity, and other financial and accounting measures; our ability to commercialize EC products and intellectual property; expectations about the timing and amount of future dividend payments; returning value to stockholders; and related matters. These statements are based on current expectations, estimates, projections, beliefs and assumptions of our management. Such statements involve significant 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, changes and timing in laws, regulations, IRS interpretations or guidance, accounting rules and any pending court decisions, legal challenges to or repeal of them; changes in prices, economic conditions and market demand; the ability of the RC facilities to produce coal that qualifies for tax credits; the timing, terms and changes in contracts for RC facilities, or failure to lease or sell RC facilities; impact of competition; availability, cost of and demand for alternative tax credit vehicles and other technologies; technical, start-up and operational difficulties; availability of raw materials; loss of key personnel; the value of our products, technologies and intellectual property to customers and strategic investors; intellectual property infringement claims from third parties; the outcome of pending litigation; seasonality and other factors discussed in greater detail in our filings with the SEC. You are cautioned not to place undue reliance on such statements and to consult our SEC filings for additional risks and uncertainties that may apply to our business and the ownership of our securities. Our forward-looking statements are presented as of the date made, and we disclaim any duty to update such statements unless required by law to do so.

# 2016 Strategic Priorities



- Made very strong progress against nearly all of our strategic priorities that we outlined on the 2015 10-K conference call
- Looking ahead, we will continue to focus on obtaining new tax equity investors while further enhancing the profile of the business through the execution of our 2017 strategies

Progress	Strategic Priority
✓	NASDAQ relisting and SEC compliance with financial filings
✓	Eliminate debt & improve liquidity position
✓	Implement remaining cost control initiatives
✓	Evaluate strategic alternatives to ensure proper value
●	Continue to commercialize Emissions Control products and IP
●	Assess how to appropriately return value to shareholders
●	Drive new RC closings and incremental cash flows

# 2016 Highlights



- Distributions from the Refined Coal (“RC”) business exceeded our initial expectations, as Q4’16 was third highest in our history
  - Tinuum completed leasing 3 RC facilities and selling our RCM6 investment during the year
  - Tinuum distributions to ADES were \$46.2 million for full year 2016
  - Future expected aggregate rent payments from RC facilities were \$590 million through 2021 as of December 31, 2016
  - Expects to close on new lease with existing investor for an additional RC facility by end of first quarter
- Emissions Control (“EC”) business continued execution on equipment contracts and commercialization of chemical technologies, while minimizing costs associated with business
  - Reduced general and administrative operating costs and drove higher positive operating income during the period
  - Completed significant portion of equipment obligations, recognizing equipment revenues of \$46.9 million with remaining total backlog of \$49.5 million
  - Proving business model through numerous tests at various utilities, resulting in \$2.1 million and 241% increase in chemical revenues
  - Increased cash balance by \$5.6 million since September 30, 2016
  - Paid off Credit Agreement and sold equity investment in RCM6, which eliminated debt and note payable obligations

# Financial Review



Financial data highlights: <i>(in thousands)</i>	Years ended December 31,		
	2016	2015	2014
Revenues	\$ 50,622	\$ 62,739	\$ 16,923
Cost of revenues, exclusive of depreciation and amortization	\$ 39,817	\$ 47,552	\$ 11,620
Other operating expenses	\$ 26,903	\$ 56,987	\$ 47,117
Earnings from equity method investments	\$ 45,584	\$ 8,921	\$ 42,712
Royalties, related party	\$ 6,125	\$ 10,642	\$ 6,410
Other income (expenses), net	\$ 1,129	\$ (7,884)	\$ (5,625)
Income tax (benefit) expense	\$ (60,938)	\$ 20	\$ 296
Net income (loss)	\$ 97,678	\$ (30,141)	\$ 1,387

Financial data highlights: <i>(in thousands)</i>	As of December 31,	
	2016	2015
Cash and cash equivalents	\$ 13,208	\$ 9,265
Restricted cash, current and long-term	\$ 13,736	\$ 11,708
Deferred tax assets, net	\$ 61,396	\$ —
Short-term borrowings and notes payable, related party, current and long-term	\$ —	\$ 28,025

- Revenues during 2016 were primarily due to completion of EC equipment contracts but also benefited from the growth in chemical sales
- Other Operating Expenses ("G&A"), declined by 53% in 2016 compared to 2015
- Earnings from RC equity investments increased substantially year-over-year due to Tinum Group no longer having material operations of retained RC facilities
- Royalties from Tinum were down primarily as a result of the suspension of operations for certain retained RC facilities
- Net income increased, primarily driven by equity income recognition from the RC business (see footnote 7 of the December 31, 2016 Annual Report on Form 10-K), expense reductions due to restructuring and business alignment activities and the deferred tax asset valuation allowance release of \$61.4 million
- Cash increased principally as a result of distributions from Tinum and decreased operating costs and the elimination of debt
- Deferred tax asset valuation allowance decrease of \$72.4 million due to the 2016 utilization of \$11.0 million and fourth quarter release of \$61.4 million of our previously recorded deferred tax asset valuation allowance

# Quarterly Financial Review - 2015 and 2016



Financial data highlights: <i>(in thousands)</i>	For the Quarter Ended			
	December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Revenues	\$ 3,604	\$ 15,710	\$ 8,951	\$ 22,357
Cost of revenues, exclusive of operating expenses shown below	3,478	13,259	5,769	17,311
Other operating expenses	5,388	5,364	7,794	8,357
Earnings from equity method investments	15,518	10,735	13,754	5,577
Royalties, related party	2,203	2,064	669	1,189
Other income (expenses), net	1,698	309	(1,852)	974
Income tax (benefit) expense	(61,673)	583	99	53
Net income	\$ 75,830	\$ 9,612	\$ 7,860	\$ 4,376

Financial data highlights: <i>(in thousands)</i>	For the Quarter Ended			
	December 31, 2015	September 30, 2015	June 30, 2015	March 31, 2015
Revenues	\$ 13,202	\$ 12,885	\$ 14,895	\$ 21,757
Cost of revenues, exclusive of operating expenses shown below	7,224	10,610	14,003	15,715
Other operating expenses	13,113	12,264	18,670	12,940
Earnings (loss) from equity method investments	3,788	(41)	4,860	314
Royalties, related party	2,876	3,273	2,299	2,194
Other expenses, net	(2,568)	(1,853)	(1,765)	(1,698)
Income tax (benefit) expense	(131)	44	63	44
Net loss	\$ (2,908)	\$ (8,654)	\$ (12,447)	\$ (6,132)

- Revenues during the fourth quarter of 2016 were primarily due to completion of EC equipment contracts but also benefited from the growth in chemical sales
- Other Operating Expenses ("G&A") in the fourth quarter declined by 59% year-over-year
- Earnings from RC equity investments tripled during the quarter compared to last year's period due to Tinuum Group no longer having material operations of retained RC facilities
- Royalties from Tinuum were down slightly during the quarter, primarily as a result of the suspension of operations for certain retained RC facilities and the impact of reduced RC royalty tonnage and royalty earnings per ton
- Deferred tax asset valuation allowance decrease of \$61.4 million of our previously recorded deferred tax asset valuation allowance in the fourth quarter

# Select Components of Net Income (Loss)



- Overview of components of the consolidated net income (loss)

Select Components of Net Income (Loss) (In thousands)	Years ended December 31,		
	2016	2015	2014
Consolidated Net Income (Loss)	\$ 97,678	\$ (30,141)	\$ 1,387
RC Segment Operating income	\$ 51,264	\$ 12,131	\$ 42,094
EC Segment Operating income (loss)	7,334	(7,583)	(13,348)
Segment income	58,598	4,548	28,746
Corporate and other adjustments to reconcile to net income (loss) attributable to ADES	39,080	(34,689)	(27,359)
Consolidated Net Income (Loss)	\$ 97,678	\$ (30,141)	\$ 1,387

- Select components impacting the consolidated results

Select Components of Net Income (Loss) <sup>(1)</sup> (In thousands)	Years ended December 31,		
	2016	2015	2014
Non-cash items, as disclosed (or derived) on the Consolidated Statements of Cash Flows	\$ 58,395	\$ (9,064)	\$ (13,676)
Restructuring expense, exclusive of stock-based compensation, included in non-cash items above	\$ (1,136)	\$ (6,929)	\$ (2,544)
Research and development expense, net	\$ 648	\$ (5,362)	\$ (1,521)
Restatement expense	\$ (2,005)	\$ (9,469)	\$ (6,149)
Corporate interest (expense) income, net	\$ (2,334)	\$ 24	\$ 74
SEC Inquiry expense	\$ (500)	\$ —	\$ —

<sup>(1)</sup> See Appendix A for additional details



# Refined Coal

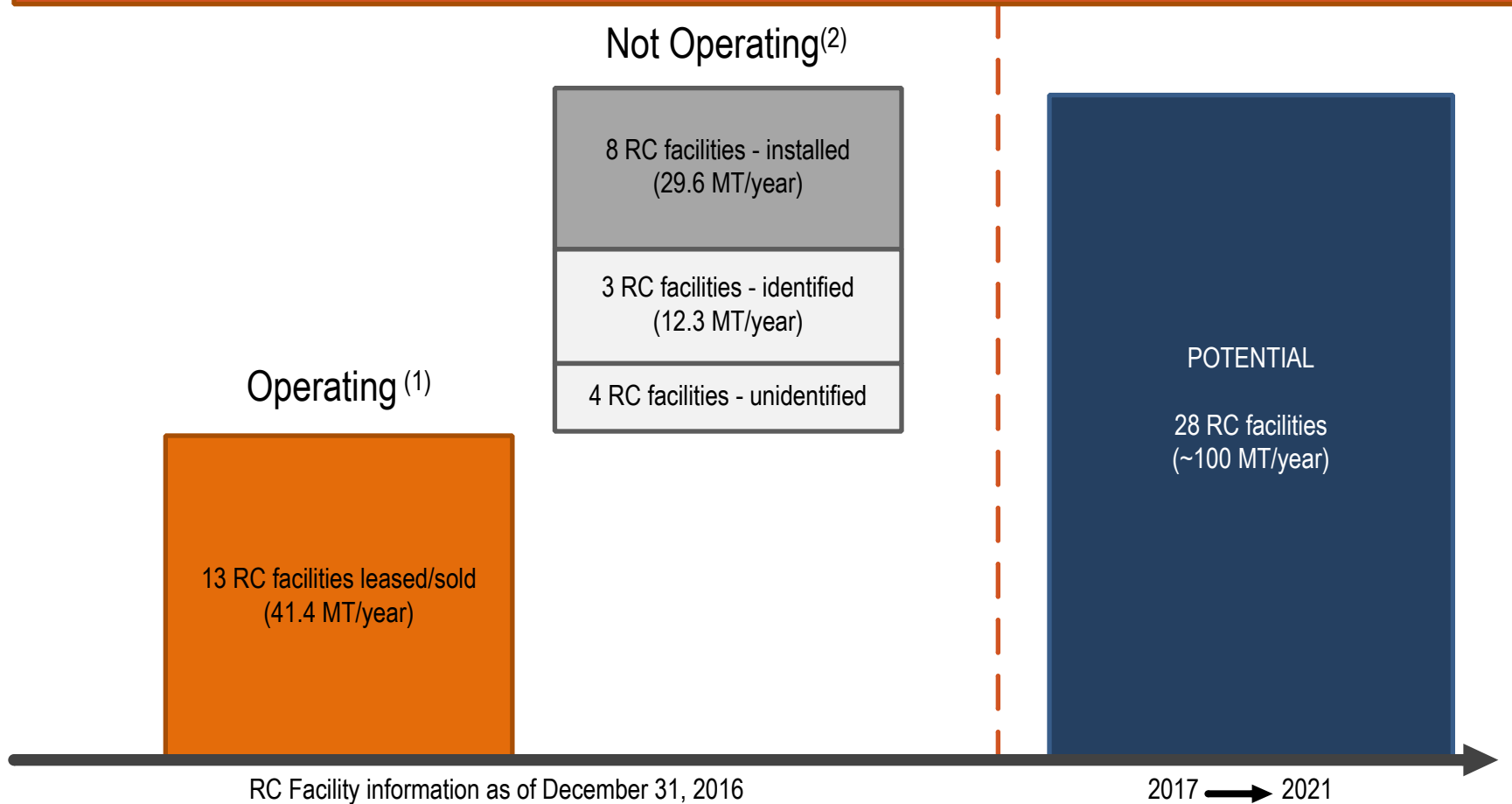




# RC Facilities Today and Tomorrow



## Full-time Operations Roadmap



(1) All tonnage based on trailing 12 months (TTM) as of December 31, 2016 based on actual tonnage burned

(2) Non operating tonnage is per US Energy Information Administration – TTM ended December 31, 2016

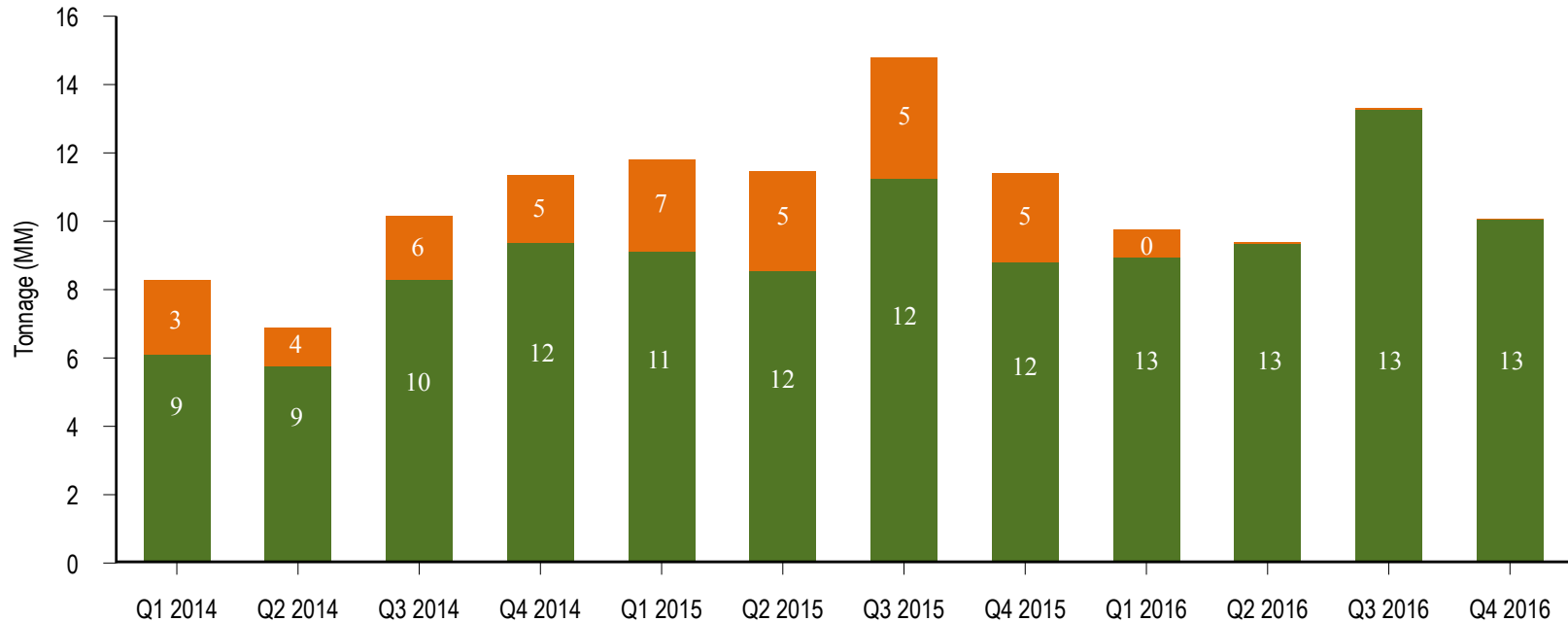
# Refined Coal: Components of Earnings



Components of RC Segment Earnings (In thousands)	Years ended December 31,		
	2016	2015	2014
<b>RC Segment Revenues</b>			
Tinuum Group	\$ 41,650	\$ 8,651	\$ 43,584
Tinuum Services	4,491	4,838	3,625
RCM6	(557)	(4,568)	(4,497)
Total equity method revenue	45,584	8,921	42,712
Consulting	—	55	665
Royalties, related party	6,125	10,642	6,410
<b>Total RC Segment Revenues</b>	<b>\$ 51,709</b>	<b>\$ 19,618</b>	<b>\$ 49,787</b>
<b>RC Segment Operating Income</b>	<b>\$ 51,264</b>	<b>\$ 12,131</b>	<b>\$ 42,094</b>
<b>Significant components of RC segment expenses and other income:</b>			
453A interest	\$ 2,490	\$ 4,639	\$ 3,371
RCM6 note payable interest expense, related party	\$ 263	\$ 2,468	\$ 2,245
RCM6 gain on sale	\$ 2,078	\$ —	\$ —

- Earnings from RC equity investments increased substantially year-over-year due to Tinuum Group no longer having material operations of retained RC facilities
- Royalties from Tinuum were down primarily as a result of the suspension of operations for certain retained RC facilities recorded deferred tax asset valuation allowance

# Operating Tons: Invested vs. Retained



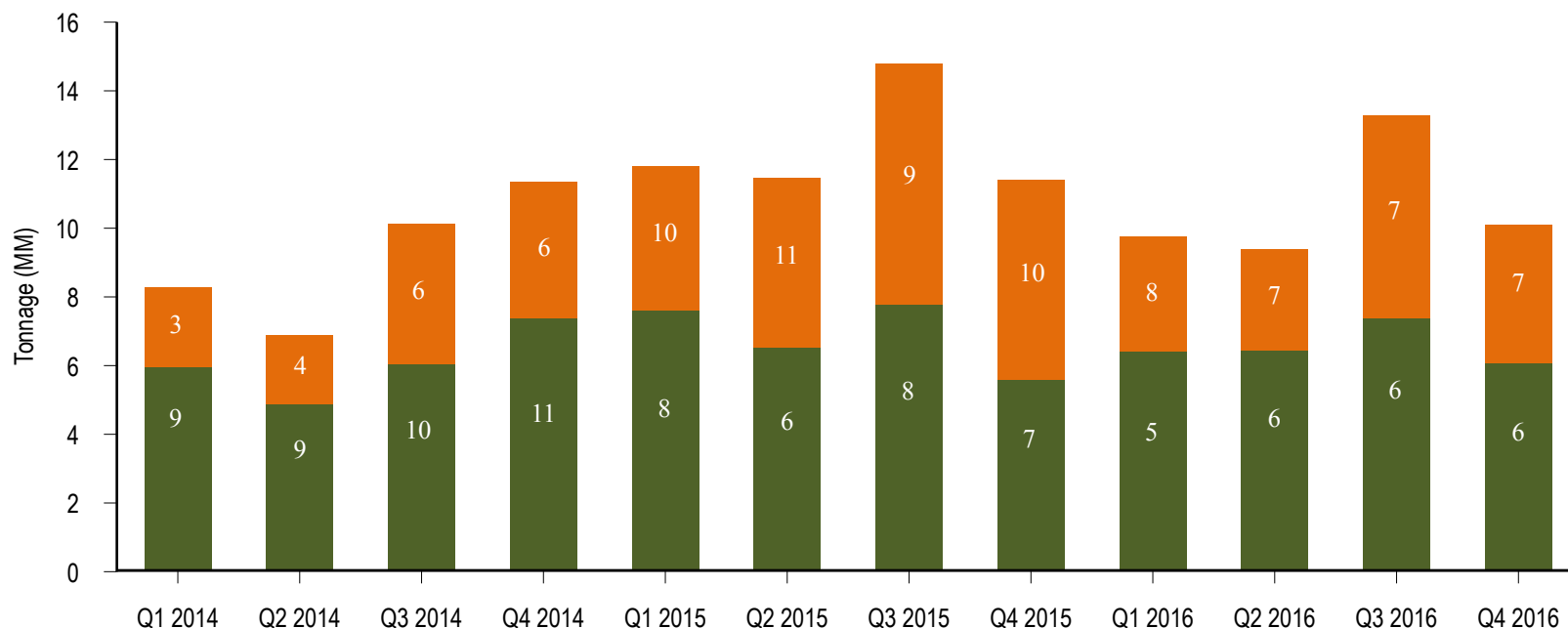
Three Months Ended December 31, 2016	Invested	Retained	QTD - Total
Tonnage <sup>(1)</sup>	10,068	15	10,083
Count (#)	13	—	13

Year ended December 31, 2016	Invested	Retained	YTD - Total
Tonnage <sup>(1)</sup>	41,628	890	42,518
Count (#)	13	—	13

Note: Numbers within bar graph and the "Count" row within the tables represent the number of facilities per category as of the end of each quarter presented.

(1) Tonnage information is based upon RC production for the three and twelve months ended December 31, 2016 (in thousands)

# Operating Tons: Royalty vs. Non-Royalty



Three Months Ended December 31, 2016	Operating Tons		QTD - Total
	Royalty	Non-Royalty	
Tonnage <sup>(1)</sup>	4,014	6,069	10,083
Count (#) <sup>(2)</sup>	7	6	13

Year ended December 31, 2016	Operating Tons		YTD - Total
	Royalty	Non-Royalty	
Tonnage <sup>(1)</sup>	16,172	26,346	42,518
Count (#) <sup>(2)</sup>	8	7	15

Note: Numbers within bar graph and the "Count" row represent the number of facilities per category that operated during each period presented.

(1) Tonnage information is based upon RC production for the three and twelve months ended December 31, 2016 (in thousands)

(2) Counts are based upon the number of facilities of which a royalty has been earned during the period

# Future Rent Payments – Tinum Group Invested Facilities



- As of December 31, 2016, remaining payments to all Tinum Group members from Tinum Group's current RC facilities leased or sold to tax equity investors are expected to be an aggregate of ~\$590 million from 2017 through 2021; assuming no modifications of contracts, delay in anticipated payments, non-renewals or early terminations
- Under those same assumptions, after applicable deductions related to Tinum Group operating and general and administrative expenses, and taking ADES' 42.5% interest in those distributions, ADES's expected distributions would be roughly \$10 million - \$12 million per quarter on average
- The projections are based on the following four key assumptions: 1) Tinum Group continues to not operate retained facilities; 2) Tinum Group does not have material CapEx or unusual operating expenses; 3) tax equity lease renewals are not modified; 4) coal-fired generation remains consistent
- Rollforward of Tinum Group Expected Payment from September 30, 2016:

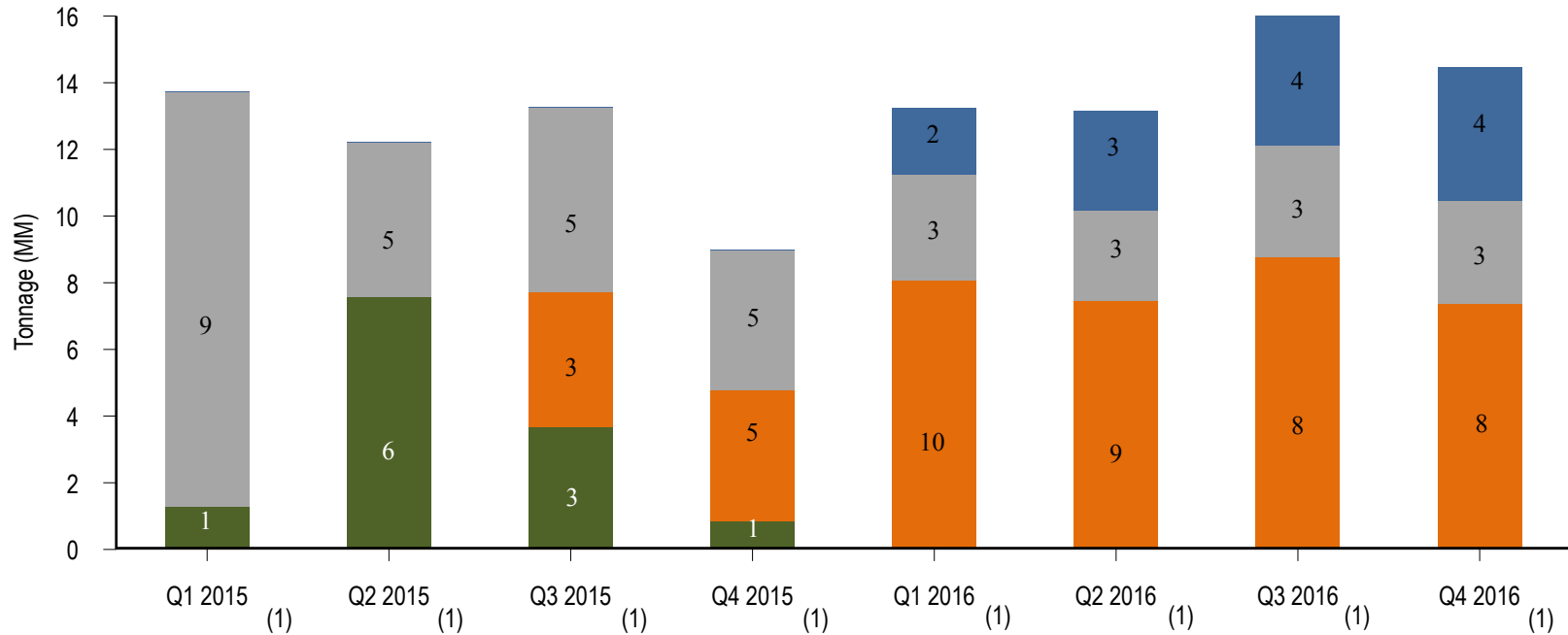
Tinum Group Expected Payments as of December 31, 2016 (in millions)		
2017	\$	116
2018		130
2019		134
2020		123
2021 and thereafter		87
	\$	590

*Note: ADES receives 42.5% of these amounts, after applicable deductions related to Tinum Group operating, general and administrative and Class B preferred return expenses*

Tinum Group Expected Payments Rollforward (in millions)		
Balance, September 30, 2016	\$	648
Rent payments		(32)
Changes in estimates <sup>(1)</sup>		(26)
	\$	590

<sup>(1)</sup> Change in estimated payments due to change in dispatch from coal to natural gas for a single unit at one utility

# Non-Operating Tons<sup>(4)</sup>: Potential Future Tonnage to Tinuum Group



Three Months Ended December 31, 2016	Non-Operating				QTD - Total
	Identified	Unidentified	Construction	Installed	
Tonnage <sup>(2) (3)</sup>	3,103	4,000	—	7,371	14,474
Count (#)	3	4	—	8	15

Year ended December 31, 2016	Non-Operating				YTD - Total
	Identified	Unidentified	Construction	Installed	
Tonnage <sup>(2) (3)</sup>	12,343	13,000	—	31,688	57,031
Count (#)	3	4	—	8	15

Note: Numbers within bar graph represent the number of facilities per category as of the end of each quarter presented.

(1) Based on actual tonnage produced

(2) Tonnage information is based upon RC production for the three and twelve months ended December 31, 2016 (in thousands)

(3) Unidentified facilities potential tonnage is estimated to be 4 million per facility on an annual basis

(4) Non-operating tonnage is per US Energy Information Administration - TTM ended December 31, 2016 (in thousands)



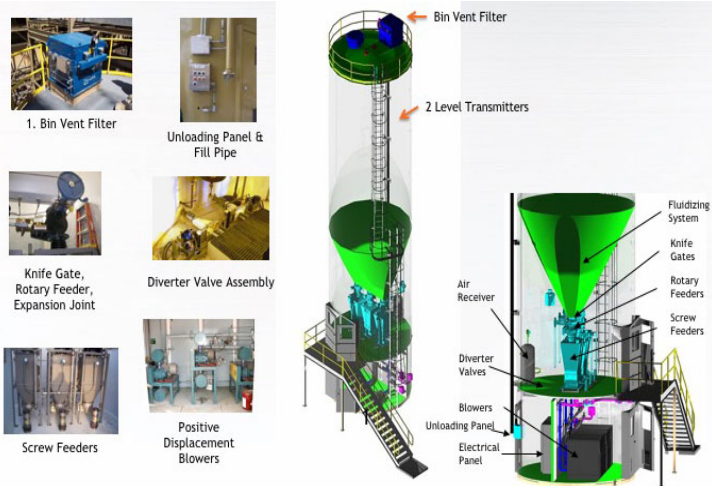
# Emissions Control



# Emissions Control: Transformation

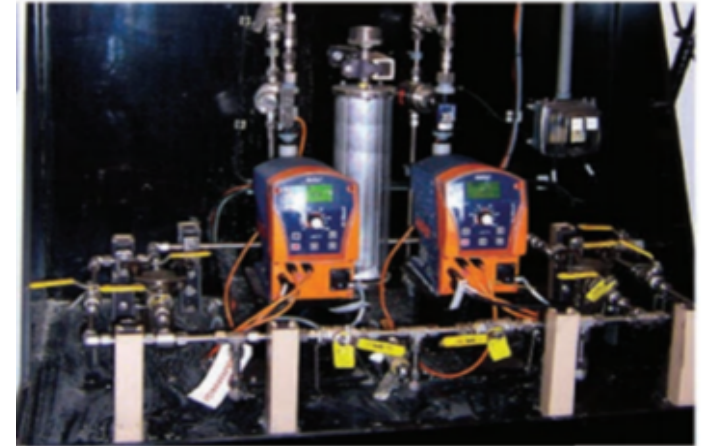


- Narrowed focus on recurring, repeatable business backed by strong technology and know-how



## Prior Focus: Broad & Bulky

Large Equipment Sales  
One-Time Purchases  
Capital Intensive  
Low Margin



## 2017 Forward: Lean & Focused

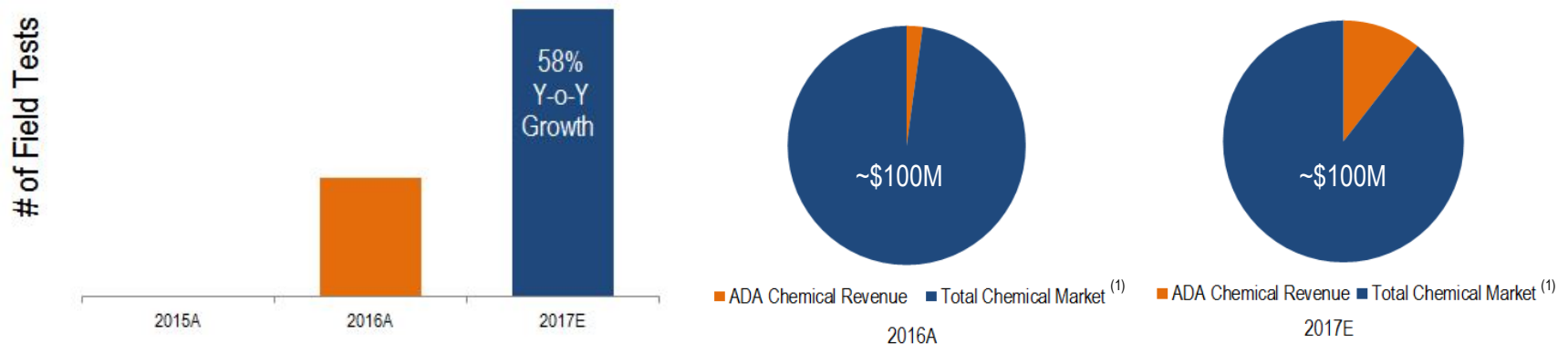
Consumable Chemicals  
Recurring Revenue Model  
Patented Technologies  
High Margin



# Emissions Control: Chemicals Opportunity



- U.S. coal fired power utilities continue to pursue low cost mercury control solutions to ensure long-term viability
- Patented chemical technologies provide a cost effective alternative to other halogen-based chemicals used to enhance mercury removal and reduce mercury emissions
  - Typical annual recurring deal size ranges between \$0.2 million to \$0.4 million per unit
- During 2017, we expect to increase our existing chemical technology revenues through increased ongoing sales to existing customers and customer conversions from field testing to recurring sales



<sup>(1)</sup> Total Chemical Market estimated annual revenues based on the Company's internal estimates from current products for the mercury control consumables market

# Emissions Control: Future Focus



- We also plan to perform assessments requiring minimal capital related to technology and commercial feasibility related to multiple potential complimentary products to our existing mercury control chemical technologies
- Evaluate dynamic and fragmented fossil fuel power market in the U.S. or the broader energy market to potentially provide partnership or M&A opportunities aligned with the following criteria:
  - EBITDA positive
  - Enable tax asset monetization
  - Revenue and expense synergies
- Disciplined approach to ensure accretive shareholder value is provided

# Emissions Control: Components of Earnings



Components of EC Segment Earnings (In thousands)	Years ended December 31,		
	2016	2015	2014
<b>EC Segment Revenues</b>			
Equipment sales	\$ 46,949	\$ 60,099	\$ 12,044
Chemicals	3,025	888	391
Consulting services	648	1,697	3,823
<b>Total EC Segment Revenues</b>	<b>\$ 50,622</b>	<b>\$ 62,684</b>	<b>\$ 16,258</b>
<b>EC Segment Operating Income (Loss)</b>	<b>\$ 7,334</b>	<b>\$ (7,583)</b>	<b>\$ (13,348)</b>
<b>Significant components of EC segment expenses and other income:</b>			
Equipment cost of revenue, exclusive of D&A	\$ 37,741	\$ 45,433	\$ 9,277
Chemical cost of revenue, exclusive of D&A	\$ 1,700	\$ 601	\$ 140
Consulting services cost of revenue, exclusive of D&A	\$ 376	\$ 1,518	\$ 2,203
Payroll and benefits	\$ 2,896	\$ 9,853	\$ 8,147
Legal and professional fees	\$ 76	\$ 2,677	\$ 78
Research and development expense, net	\$ (648)	\$ 5,362	\$ 1,521
Impairment of cost method investment	\$ 1,760	\$ —	\$ —
DSI business owner gain on settlement	\$ (869)	\$ —	\$ —
Lease termination gain	\$ (900)	\$ —	\$ —

# Corporate and Other: Summary



Adjustments to reconcile to net loss attributable to ADES (In thousands)	Years ended December 31,		
	2016	2015	2014
RC segment operating income	\$ 51,264	\$ 12,131	\$ 42,094
EC segment operating income (loss)	7,334	(7,583)	(13,348)
Total reported segment operating income	58,598	4,548	28,746
Adjustments to reconcile to net income (loss) attributable to the Company			
Corporate payroll and benefits	(9,415)	(14,842)	(12,621)
Corporate rent and occupancy	(1,187)	(707)	(694)
Corporate legal and professional fees	(8,230)	(15,199)	(9,514)
Corporate general and administrative	(3,811)	(3,640)	(3,980)
Corporate depreciation and amortization	(608)	(578)	(354)
Corporate interest (expense) income, net <sup>(1)</sup>	(2,334)	24	74
Other income (expense), net	3,727	273	26
Income tax benefit (expense)	60,938	(20)	(296)
Net income (loss)	\$ 97,678	\$ (30,141)	\$ 1,387

- Reduction in corporate payroll and benefits in connection with restructuring actions taken during the latter half of 2015 and during the second and third quarters of 2016; included within these costs are payroll related restructuring charges of \$0.6 million and \$1.9 million during the years ended December 31, 2016 and 2015, respectively
- Legal and professional fees decreased, most significantly due to the completion of the most material aspects of the Restatement process during the first quarter of 2016; Restatement expenses were \$2.0 million and \$9.5 million during the years ended December 31, 2016 and 2015, respectively
- During the second quarter of 2016, the Company reached an agreement in principle for the SEC Inquiry. The Company recorded an accrual of \$0.5 million related to the SEC Inquiry
- Other income (expense), net increased, most significantly due to the revision of the estimated litigation settlement and royalty indemnity expense by \$3.5 million during the year ended December 31, 2016

<sup>(1)</sup> The Credit Agreement, discussed in Note 14 of the Consolidated Financial Statements included in the 2016 Form 10-K filing was paid off on June 30, 2016

# Corporate and EC Expected Cost Basis



	Years ended December 31,				
	2014	2015	2016	Estimated 2017 Low End of Range (1)	Estimated 2017 High End of Range (1)
<i>(In thousands)</i>					
Payroll and benefits	\$ 20,767	\$ 23,589	\$ 12,390		
Rent and occupancy	2,468	3,309	2,168		
Legal and professional fees	14,430	16,604	8,293		
General and administrative	6,066	6,104	3,721		
Research and development, net	1,521	5,362	(648)		
Depreciation and amortization	1,865	2,019	979		
Total expected cost basis	<u>\$ 47,117</u>	<u>\$ 56,987</u>	<u>\$ 26,903</u>	<u>\$ 15,000</u>	<u>\$ 17,000</u>
Less: non-cash expenses					
Share-based compensation expense	(4,712)	(6,879)	(2,868)		
Depreciation and amortization	(1,865)	(2,019)	(979)		
Total cash based expected cost basis	<u>\$ 40,540</u>	<u>\$ 48,089</u>	<u>\$ 23,056</u>	<u>\$ 13,000</u>	<u>\$ 15,000</u>

- Reduction in EC and corporate payroll and benefits in connection with restructuring actions taken during the latter half of 2015 and during the first and second quarters of 2016; included within these costs are payroll related restructuring charges of \$1.6 million and \$10.4 million during the years ended December 31, 2016 and 2015, respectively
- Legal and professional fees decreased, most significantly due to the completion of the most material aspects of the Restatement process during the first half of 2016; Restatement expenses were \$2.0 million and \$9.5 million during the years ended December 31, 2016 and 2015, respectively
- 2017 range estimated based upon full year realization of prior period expense reductions and reorganization of workforce

(1) Estimated 2017 range does not include one-time expenses that could be incurred.

# Tinum Group and ADES: Cash Flow



Cash Flow Update (In thousands)	Years ended December 31,		
	2016	2015	2014
<b>Tinum Group</b>			
Tinum Group cash, beginning of year	\$ 6,183	\$ 3,870	\$ 11,663
Cash provided by (used in):			
Operating activities	79,723	37,750	83,633
Investing activities	(2,846)	(30,061)	(9,789)
Financing activities	(72,163)	(5,376)	(81,637)
Net change in cash	4,714	2,313	(7,793)
Tinum Group cash, end of year	\$ 10,897	\$ 6,183	\$ 3,870
Distributions to ADES	\$ 46,150	\$ 13,670	\$ 46,093
<b>ADES</b>			
Cash and cash equivalents and restricted cash, beginning of year	\$ 20,973	\$ 36,479	\$ 45,557
Cash provided by (used in):			
Operating activities	(18,257)	(29,869)	(40,161)
Investing activities	39,899	4,334	32,648
Financing activities	(15,671)	10,029	(1,565)
Net change in cash and cash equivalents and restricted cash	5,971	(15,506)	(9,078)
Cash and cash equivalents and restricted cash, end of year	\$ 26,944	\$ 20,973	\$ 36,479

- Cash and cash equivalents balance increased from \$9.3 million as of December 31, 2015 to \$13.2 million as of December 31, 2016
  - Increase primarily due to distributions from Tinum of \$46.2 million and the release of restricted cash for equipment contracts
  - Offset by debt service payments on our Credit Agreement and notes payable, fees incurred to extend the maturity of our Credit Agreement, the payoff of our Credit Agreement on June 30, 2016, delivering on our existing contracts and customer commitments and continued professional fees related to our Restatement activities and becoming current with our 2015 regulatory filings

*Note: ADES owns 42.5% of Tinum Group and accounts for its investment under the equity method of accounting*



- Increase number of RC facilities with tax equity investors
- Complete remaining EC equipment businesses using more asset light business model, on time and on schedule
- Capture increased share of the \$100 million chemical technologies opportunity
- Further evaluate commercial feasibility of other complementary patented technologies to expand our market opportunities
- Evaluate dynamic and fragmented fossil fuel power market in the U.S. or the broader energy market to potentially provide partnership or M&A opportunities

Potential M&A Criteria	
Revenue Synergies	Positive EBITDA
Expense Synergies	Accretive

- Distribution of value to stockholders in the form of an expected recurring quarterly dividend of \$0.25 per share, expected to commence in the 2nd quarter of 2017 upon declaration by our Board.



# Appendix





# Appendix A: Supplemental Disclosure ADES Select Cash and Non-cash Components of the years ended December 31, 2016, 2015 and 2014 Net Income (Loss)



(in thousands)

	Years Ended December 31,					
	Ref.	2016	Ref.	2015		2014
<b>Net Income (Loss)</b>	(1)	\$ 97,678	(1)	\$ (30,141)	(1)	\$ 1,387
RC segment operating income	(2)	51,264	(2)	12,131	(2)	42,094
EC Segment income (loss)	(2)	7,334	(2)	(7,583)	(2)	(13,348)
	(2)	58,598	(2)	4,548	(2)	28,746
Corporate and other adjustments to reconcile to net income (loss) attributable to ADES	(2)	39,080	(2)	(34,689)	(2)	(27,359)
Total of Select Components of Net Income (Loss)	(2)	<u>97,678</u>	(2)	<u>(30,141)</u>	(2)	<u>1,387</u>
<b>Non-Cash Items:</b>						
Deferred tax asset valuation allowance	(3)	61,396	(3)	—	(3)	—
Depreciation and Amortization	(3)	(979)	(3)	(2,019)	(3)	(1,865)
Amortization of debt discount/issuance costs	(3)	(1,152)	(3)	(987)	(3)	(100)
Debt prepayment penalty	(3)	(228)	(3)	—	(3)	—
Gain on settlement of note payable, licensed technology and sales type lease	(3)	1,910	(3)	—	(3)	—
Impairment of property, equipment, inventory and intangibles	(3)	(520)	(3)	(2,087)	(3)	(355)
Provision for bad debt expense and note receivable	(3)	(13)	(3)	(633)	(3)	(500)
Interest Costs Added to Principal Balance of Notes Payable	(3)	—	(3)	(923)	(3)	(1,124)
Share-Based Compensation Expense	(3)	(2,868)	(3)	(6,879)	(3)	(4,712)
Non-cash portion of earnings from equity method investments	(6)	566	(6)	4,749	(6)	(3,381)
Gain on sale of equity method investment	(3)	2,078	(3)	—	(3)	—
Impairment of cost method investment	(3)	(1,760)	(3)	—	(3)	—
Other	(3)	(35)	(3)	(285)	(3)	(1,639)
<b>Total Non-Cash Items</b>		<u>58,395</u>		<u>(9,064)</u>		<u>(13,676)</u>
<b>Significant Cash Items:</b>						
Restructuring Expenses (net of non-cash charges)	(4)	(1,559)	(4)	(10,360)	(4)	(3,503)
Less non-cash Share Based Compensation	(4)	423	(4)	3,431	(4)	959
Restructuring Expenses--Cash		<u>(1,136)</u>		<u>(6,929)</u>		<u>(2,544)</u>
Research and Development Expenses (excluding non-cash impairment charges)	(1)	648	(1)	(5,362)	(1)	(1,521)
Restatement Expenses	(5)	2,005	(5)	9,469	(5)	6,149

**Footnotes :**

- (1) Agrees to ADES Consolidated Statement of Operations in the 2016 Form 10-K filing
- (2) Agrees to ADES Note 17 in the 2016 Form 10-K filing
- (3) Agrees to or totaled from ADES Consolidated Statement of Cash Flows in the 2016 Form 10-K filing
- (4) Agrees to ADES Note 2 in the 2016 Form 10-K filing
- (5) Agrees to ADES "Management Discussion and Analysis" in Item 7 in the 2016 Form 10-K filing
- (6) Derived from ADES Note 7 in the 2016 Form 10-K filing

# Appendix B: 10-K Balance Sheet<sup>(1)</sup>



<i>(in thousands, except share data)</i>	As of December 31,	
	2016	2015
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 13,208	\$ 9,265
Restricted cash	13,736	728
Receivables, net	8,648	8,361
Receivables, related parties, net	1,934	1,918
Costs in excess of billings on uncompleted contracts	25	2,137
Prepaid expenses and other assets	1,357	2,306
Total current assets	<u>38,908</u>	<u>24,715</u>
Restricted cash, long-term	—	10,980
Property and equipment, net of accumulated depreciation of \$2.920 and \$4.557	735	2,040
Investment securities, restricted, long-term	—	336
Cost method investment	1,016	2,776
Equity method investments	3,959	17,232
Deferred tax assets	61,396	—
Other assets	1,282	2,696
Total Assets	<u>\$ 107,296</u>	<u>\$ 60,775</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>		
Current liabilities:		
Accounts payable	\$ 1,920	\$ 6,174
Accrued payroll and related liabilities	2,121	5,800
Current portion of notes payable, related parties	—	1,837
Billings in excess of costs on uncompleted contracts	4,947	9,708
Short-term borrowings, net of discount and deferred loan costs, related party	—	12,676
Legal settlements and accruals	10,706	6,502
Other current liabilities	4,017	7,395
Total current liabilities	<u>23,711</u>	<u>50,092</u>
Long-term portion of notes payable, related parties	—	13,512
Legal settlements and accruals, long-term	5,382	13,797
Other long-term liabilities	2,038	8,352
Total Liabilities	<u>31,131</u>	<u>85,753</u>
Commitments and contingencies (Note 14)		
Stockholders' equity (deficit):		
Preferred stock: par value of \$.001 per share, 50,000,000 shares authorized, none outstanding	—	—
Common stock: par value of \$.001 per share, 100,000,000 shares authorized, 22,322,022 and 21,943,872 shares issued and 22,024,675 and 21,809,164 shares outstanding at December 31, 2016 and 2015, respectively	22	22
Additional paid-in capital	119,494	116,029
Accumulated deficit	(43,351)	(141,029)
Total stockholders' equity (deficit)	<u>76,165</u>	<u>(24,978)</u>
Total Liabilities and Stockholders' Equity (Deficit)	<u>\$ 107,296</u>	<u>\$ 60,775</u>

(1) See complete, Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the year ended December 31, 2016.

# Appendix C: 10-K Income Statement<sup>(1)</sup>



<i>(in thousands, except per share data)</i>	Years Ended December 31,		
	2016	2015	2014
Revenues:			
Equipment sales	\$ 46,949	\$ 60,099	\$ 12,044
Chemicals	3,025	888	391
Consulting services and other	648	1,752	4,488
Total revenues	<u>50,622</u>	<u>62,739</u>	<u>16,923</u>
Operating expenses:			
Equipment sales cost of revenue, exclusive of depreciation and amortization	37,741	45,433	9,277
Chemicals cost of revenue, exclusive of depreciation and amortization	1,700	601	140
Consulting services and other cost of revenue, exclusive of depreciation and amortization	376	1,518	2,203
Payroll and benefits	12,390	23,589	20,767
Rent and occupancy	2,168	3,309	2,468
Legal and professional fees	8,293	16,604	14,430
General and administrative	3,721	6,104	6,066
Research and development, net	(648)	5,362	1,521
Depreciation and amortization	979	2,019	1,865
Total operating expenses	<u>66,720</u>	<u>104,539</u>	<u>58,737</u>
Operating loss	<u>(16,098)</u>	<u>(41,800)</u>	<u>(41,814)</u>
Other income (expense):			
Earnings from equity method investments	45,584	8,921	42,712
Royalties, related party	6,125	10,642	6,410
Interest income	268	24	74
Interest expense	(5,066)	(8,402)	(5,725)
Litigation settlement and royalty indemnity expense, net	3,464	—	—
Other	2,463	494	26
Total other income	<u>52,838</u>	<u>11,679</u>	<u>43,497</u>
Income (loss) before income tax expense	<u>36,740</u>	<u>(30,121)</u>	<u>1,683</u>
Income tax (benefit) expense	<u>(60,938)</u>	<u>20</u>	<u>296</u>
Net income (loss)	<u>\$ 97,678</u>	<u>\$ (30,141)</u>	<u>\$ 1,387</u>
Earnings (loss) per common share (Note 1):			
Basic	\$ 4.40	\$ (1.37)	\$ 0.06
Diluted	\$ 4.34	\$ (1.37)	\$ 0.06
Weighted-average number of common shares outstanding:			
Basic	21,931	21,773	21,554
Diluted	22,234	21,773	22,079

(1) See complete, Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the year ended December 31, 2016.

# Appendix D: 10-K Cash Flow<sup>(1)</sup>



<i>(in thousands)</i>	Years Ended December 31,		
	2016	2015	2014
<b>Cash flows from operating activities</b>			
Net income (loss)	\$ 97,678	\$ (30,141)	\$ 1,387
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Deferred tax benefit	(61,396)	—	—
Depreciation and amortization	979	2,019	1,865
Amortization of debt issuance costs	1,152	987	100
Debt prepayment penalty	228	—	—
Impairment of property, equipment, inventory and intangibles	520	2,087	355
Provision for bad debt expense and note receivable	13	633	500
Interest costs added to principal balance of notes payable	—	923	1,124
Consulting expense financed through note payable	—	—	1,600
Share-based compensation expense	2,868	7,204	4,712
Clawback of equity awards	—	(325)	—
Earnings from equity method investments	(45,584)	(8,921)	(42,712)
Gain on sale of equity method investment	(2,078)	—	—
Impairment of cost method investment	1,760	—	—
Gain on settlement of note payable, licensed technology, and sales-type lease	(1,910)	—	—
Other non-cash items, net	35	285	39
Changes in operating assets and liabilities, net of effects of acquired businesses:			
Receivables	(301)	8,361	(3,651)
Related party receivables	(16)	(479)	(809)
Prepaid expenses and other assets	1,195	(107)	(1,877)
Costs incurred on uncompleted contracts	29,623	6,492	(56,606)
Other long-term assets	961	205	(47)
Accounts payable	(4,254)	(1,340)	2,328
Accrued payroll and related liabilities	(2,887)	(102)	686
Other current liabilities	(3,105)	(812)	(672)
Billings on uncompleted contracts	(32,272)	(15,186)	55,621
Advance deposit, related party	(2,980)	(3,544)	(2,135)
Other long-term liabilities	(2,175)	595	144
Legal settlements and accruals	(4,211)	(3,722)	(4,622)
Distributions from equity method investees, return on investment	7,900	5,019	2,509
Net cash used in operating activities	<u>(18,257)</u>	<u>(29,869)</u>	<u>(40,161)</u>

(1) See complete, Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the year ended December 31, 2016.

# Appendix D: 10-K Cash Flow<sup>(1)</sup>



<i>(in thousands)</i>	Years Ended Years Ended December 31,		
	2016	2015	2014
<b>Cash flows from investing activities</b>			
Distributions from equity method investees in excess of cumulative earnings	38,250	8,651	43,584
Purchase of investment securities	—	—	(105)
Maturity of investment securities	—	—	210
Maturity of investment securities, restricted	336	—	403
Acquisition of property and equipment	(289)	(507)	(1,563)
Proceeds from sale of property and equipment	52	942	26
Advance on note receivable	—	(500)	(500)
Acquisition of business	—	(2,124)	—
Purchase of cost method investment	—	—	(2,776)
Purchase of and contributions to equity method investee	(223)	(2,128)	(6,631)
Proceeds from sale of equity method investment	1,773	—	—
Net cash provided by investing activities	<u>39,899</u>	<u>4,334</u>	<u>32,648</u>
<b>Cash flows from financing activities</b>			
Short-term borrowings	—	13,539	—
Repayments on short-term borrowings	(13,250)	(1,750)	—
Repayments on notes payable, related party	(1,246)	(1,484)	(238)
Loan costs and amendment fees	(751)	—	(70)
Debt prepayment penalty	(228)	—	—
Proceeds received upon exercise of stock options	—	—	243
Repurchase of shares to satisfy tax withholdings	(196)	(276)	(1,500)
Net cash (used in) provided by financing activities	<u>(15,671)</u>	<u>10,029</u>	<u>(1,565)</u>
Increase (Decrease) in Cash and Cash Equivalents and Restricted Cash	5,971	(15,506)	(9,078)
Cash and Cash Equivalents and Restricted Cash, beginning of year	20,973	36,479	\$ 45,557
Cash and Cash Equivalents and Restricted Cash, end of year	<u>\$ 26,944</u>	<u>\$ 20,973</u>	<u>\$ 36,479</u>

(1) See complete, Consolidated Financial Statements and Notes related thereto within the Annual Report on Form 10-K for the year ended December 31, 2016.