

ADES

Disclaimer

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. When used in this presentation, the words "can," "will," "intends," "expects," "believes," similar expressions and any other statements that are not historical facts are intended to identify those assertions as forward-looking statements. All statements that address activities, events or developments that Advanced Emissions Solutions, Inc. ("ADES" or the "Company") intend, expect or believe may occur in the future are forward-looking statements. These forward-looking statements may relate to such matters as business strategy, goals and expectations concerning the combination of ADES and Arg (the "Transaction") (including future operations, future performance or results). The forward-looking statements may further include expectations about future demand for our APT products, pressure on APT margins and acceptance of price increases, our ability to secure customers and develop sales channels for GAC and other products, among other matters. These forward-looking statements 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: the effect of the combination of ADES and Arg on the Company's ability to hire key personnel, its ability to maintain relationships with customers, suppliers and others with whom it does business, or its results of operations and business generally; risks related to diverting management's attention from the Company's ongoing business operations; the ability to continue to meet Nasdag's listing standards; costs related to the Transaction; opportunities for additional sales of our lignite activated carbon products and end-market diversification; the Company's ability to meet customer supply requirements; the ability to successfully integrate Ara's business, the ability to develop and utilize Arg's products and technology and the expected demand for those products; the rate of coal-fired power generation in the United States; timing of new and pending regulations and any legal challenges to or extensions of compliance dates of them: the U.S. government's failure to promulgate regulations that benefit our business; changes in laws and regulations; Internal Revenue Service interpretations or guidance, accounting rules, any pending court decisions, 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; competition within the industries in which the Company operates; loss of key personnel; as well as other factors relating to our business, as described in the Company's filings with the U.S. Securities and Exchange Commission (the "SEC"), with particular emphasis on the risk factor disclosures contained in those filings. You are cautioned not to place undue reliance on the forward-looking statements and to consult filings ADES has made and will make with the SEC for additional discussion concerning risks and uncertainties that may apply to the business and the ownership of ADES securities. The forward-looking statements speak only as to the date of this presentation, and the Company does not undertake any obligation to update its forward-looking statements to reflect events or circumstances that may arise after the date of this presentation.

Non-GAAP Financial Measures

Included in this presentation are certain financial measures that are not calculated in accordance with U.S. Generally Accepted Accounting Principles ("GAAP") designed to supplement, and not substitute, the Company's financial information presented in accordance with GAAP. The non-GAAP measures as defined by the Company may not be comparable to similar non-GAAP measures presented by other companies. The presentation of such measures, which may include adjustments to exclude unusual or non-recurring items, should not be construed as an inference that the Company's future results or leverage will be unaffected by other unusual or non-recurring items. Please see the Company's filings with the SEC for how we define these non-GAAP measures, a discussion of why we believe they are useful to investors, and certain limitations and reconciliations thereof to the most directly comparable GAAP measures.







Bob Rasmus, CEO and Board Member Advanced Emissions Solutions



Why I Joined ADES

- Well-positioned to benefit from a changing regulatory landscape as the need to control and remediate the release of harmful chemicals into our air and water grows
- Sophisticated asset base between Red River and Corbin manufacturing sites combined with an integrated distribution system and skilled R&D and sales team
- When plant expansion is completed, ADES will produce a unique and high-value activated carbon to sell into a marketplace which is currently undersupplied and growing
- Only sustainable and vertically integrated AC producer in North America for its primary feedstock encompassing raw materials, manufacturing, and distribution
- Opportunity to deliver significant shareholder return while also providing material environmental benefits
- Talented group of people to execute on the plan
- The opportunity to align my compensation to long-term success of the Company



Second Quarter Highlights

Key Takeaways

- Completed integration of Arq team, systems and assets
- Successfully completed plant turnaround activity
- Remain focused on pricing initiatives on existing commercial contracts
- Favorable COGS trend
- Volumes impacted by natural gas pricing but Red River profitability improved on a per pound basis

Capital Plan & Cost Update

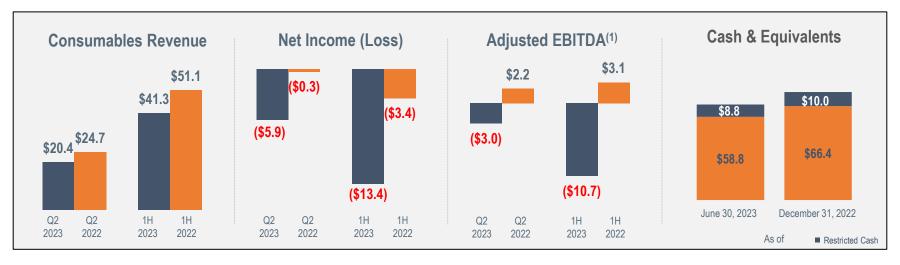
- Capital plan is on track
- Long lead time equipment being purchased
- Permitting process at Red River underway
- Reviewing all aspects of capital cost structure and schedules with intent to both optimize and expedite project schedules
- Anticipated spend at Red River and Corbin remains \$40M to \$45M in 2023

Business Plan Initiatives

- Business plan remains in-line with expectations, setting stage to realize the future growth potential
- Engaging lead customers in the granular AC market to secure sales channels
- ➤ Continuing to evaluate additional opportunities for Arg PowderTM



Financial Highlights



- Revenue decrease is driven by reduced demand for our products within the Power Generation markets, caused by lower natural gas pricing. Despite lower volumes, gross margin improved on a per pound basis due to higher average selling prices and controlled costs
- Other operating expense increased with the addition of Arq in the current period and related transaction and integration costs.
- Transaction and integration costs for the first half of the year totaled \$4.9M and are included in Net Income (Loss) and Adjusted EBITDA.
- Strong cash position provides the ability to fund plant expansion for development of granular activated carbon opportunities and execute on initial phase of growth capital plans



2023 Outlook & Milestones





Appendix





As of

Appendix A: 10-Q Balance Sheet(1)

thousands, except share data)		June 30, 2023		December 31, 2022	
ASSETS					
Current assets:					
Cash	\$	58,770	\$	66,432	
Receivables, net		10,307		13,864	
Inventories, net		23,038		17,828	
Prepaid expenses and other current assets		7,554		7,538	
Total current assets		99,669		105,662	
Restricted cash, long-term		8,813		10,000	
Property, plant and equipment, net of accumulated depreciation of \$15,463 and \$11,897, respectively		81,008		34,855	
Other long-term assets, net		44,224		30.647	
Total Assets	S	233,714	S	181,164	
LIABILITIES AND STOCKHOLDERS' EQUITY		200,711		101,101	
Current liabilities:					
Accounts payable and accrued expenses	\$	15,965	\$	16.108	
Current portion of debt obligations		1,594		1,131	
Other current liabilities		6,375		6,645	
Total current liabilities		23,934		23,884	
Long-term debt obligations, net of current portion		19,830		3,450	
Other long-term liabilities		15,135		13,851	
Total Liabilities		58,899		41,185	
Commitments and contingencies (Note 8)					
Stockholders' equity:					
Preferred stock: par value of \$0.001 per share, 50,000,000 shares authorized including Series A Convertible Preferred Stock: par value \$0.001 per share, 8,900,000 shares authorized, none issued and outstanding		_		_	
Common stock: par value of \$0.001 per share, 100,000,000 shares authorized, 37,194,159 and 23,788,319 shares issued, and 32,576,013 and 19,170,173 shares outstanding at June 30, 2023 and December 31, 2022, respectively		37		24	
Treasury stock, at cost: 4,618,146 and 4,618,146 shares as of June 30, 2023 and December 31, 2022, respectively		(47,692)		(47,692)	
Additional paid-in capital		152,042		103,698	
Retained earnings		70,428		83,949	
Total Stockholders' Equity		174,815		139,979	
Total Liabilities and Stockholders' Equity	\$	233,714	\$	181,164	



Appendix B: 10-Q Income Statement⁽¹⁾

	Three Months Ended June 30,				Six Months Ended June 30,			
(in thousands, except per share data)	2023		2022		2023		2022	
Revenues:								
Consumables	\$	20,445	\$	24,739	\$	41,250	\$	51,141
Total revenues		20,445		24,739		41,250		51,141
Operating expenses:								
Consumables cost of revenue, exclusive of depreciation and amortization		15,336		19,910		32,511		41,417
Payroll and benefits		3,555		2,519		8,254		5,145
Legal and professional fees		1,868		1,555		6,406		3,727
General and administrative		3,345		1,869		6,123		3,795
Depreciation, amortization, depletion and accretion		2,428		1,588		4,565		3,094
Gain on sale of Marshall Mine, LLC		_		_		(2,695)		_
Other		_		34		_		34
Total operating expenses		26,532		27,475		55,164		57,212
Operating loss		(6,087)		(2,736)		(13,914)		(6,071)
Other income (expense):		_						
Earnings from equity method investments		462		2,389		1,100		3,222
Interest expense		(834)		(90)		(1,368)		(176)
Other		603		111		785		(334)
Total other income		231		2,410		517		2,712
Loss before income taxes		(5,856)		(326)		(13,397)		(3,359)
Income tax benefit						33		
Net loss	\$	(5,856)	\$	(326)	\$	(13,364)	\$	(3,359)
Loss per common share (Note 1):								
Basic	\$	(0.21)		(0.02)		(0.53)		(0.18)
Diluted	\$	(0.21)	\$	(0.02)	\$	(0.53)	\$	(0.18)
Weighted-average number of common shares outstanding:								
Basic		27,360		18,473		25,739		18,409
Diluted		27,360		18,473		25,739		18,409

⁽¹⁾ See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended June 30, 2023.



Appendix C: 10-Q Cash Flow⁽¹⁾

		Six Months Ended June 30,					
(in thousands) Cash flows from operating activities		2023	2022				
Net loss	\$	(13,364)	\$	(3,359)			
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:							
Depreciation, amortization, depletion and accretion		4,565		3,094			
Gain on sale of Marshall Mine, LLC		(2,695)		_			
Operating lease expense		1,449		1,300			
Stock-based compensation expense		1,108		948			
Earnings from equity method investments		(1,100)		(3,222)			
Amortization of debt discount and debt issuance costs		244		_			
Other non-cash items, net		3		483			
Changes in operating assets and liabilities:							
Receivables and related party receivables		3,622		2,444			
Prepaid expenses and other assets		2,213		(779)			
Inventories, net		(4,946)		(4,079)			
Other long-term assets, net		(2,886)		2,942			
Accounts payable and accrued expenses		(10,114)		(2,509)			
Other current liabilities		83		(450)			
Operating lease liabilities		398		1,999			
Other long-term liabilities		261		649			
Distributions from equity method investees, return on investment		_		2,297			
Net cash (used in) provided by operating activities	\$	(21,159)	\$	1,758			



Appendix C: 10-Q Cash Flow (continued)(1)

Six Months Ended June 30,

(in thousands)	2023	2022		
Cash flows from investing activities				
Acquisition of property, plant, equipment, and intangible assets, net	\$ (10,383)	\$	(2,889)	
Cash and restricted cash acquired in business acquisition	2,225		_	
Payment for disposal of Marshall Mine, LLC	(2,177)		_	
Acquisition of mine development costs	(1,247)		(326)	
Distributions from equity method investees in excess of cumulative earnings	1,100		3,316	
Proceeds from sale of property and equipment	 		1,204	
Net cash (used in) provided by investing activities	 (10,482)		1,305	
Cash flows from financing activities				
Net proceeds from common stock issuance	15,220		_	
Net proceeds from Term Loan, related party, net of discount and issuance costs	8,522		_	
Principal payments on finance lease obligations	(577)		(594)	
Principal payments on Arq Loan	(213)		_	
Repurchase of common stock to satisfy tax withholdings	(160)		(385)	
Dividends paid on common stock	 		(45)	
Net cash provided by (used) in financing activities	 22,792		(1,024)	
(Decrease) increase in Cash and Restricted Cash	(8,849)		2,039	
Cash and Restricted Cash, beginning of period	 76,432		88,780	
Cash and Restricted Cash, end of period	\$ 67,583	\$	90,819	
Supplemental disclosure of non-cash investing and financing activities:				
Equity issued as consideration for acquisition of business	\$ 31,206	\$	_	
Change in accrued purchases for property and equipment	\$ 328	\$	173	
Paid-in-kind dividend on Series A Preferred Stock	\$ 157	\$	_	
Acquisition of property and equipment under finance lease	\$ _	\$	1,641	



Appendix D: Non-GAAP Financial Measure & Adjusted EBITDA Reconciliation to Net (Loss) Income

Note on Non-GAAP Financial Measures

To supplement the Company's financial information presented in accordance with U.S. Generally Accepted Accounting Principles, ("GAAP"), this presentation includes non-GAAP measures of certain financial performance. The non-GAAP measures include EBITDA (EBITDA Loss) and Adjusted EBITDA (EBITDA Loss). The Company included non-GAAP measures because management believes that they help to facilitate comparison of operating results between periods. The Company believes the non-GAAP measures provide useful information to both management and users of the financial statements by excluding certain expenses, gains and losses that may not be indicative of core operating results and business outlook. Management uses these non-GAAP measures in evaluating the performance of our business.

These non-GAAP measures are not in accordance with, or an alternative to, measures prepared in accordance with GAAP and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. These measures should only be used to evaluate the Company's results of operations in conjunction with the corresponding GAAP measures.

The Company has defined EBITDA (EBITDA Loss) as net income (loss) adjusted for the impact of the following items that are either non-cash or that we do not consider representative of our ongoing operating performance: depreciation, amortization, depletion, accretion, amortization of upfront customer consideration ("Upfront Customer Consideration"), interest expense, net and income taxes. The Company has defined Adjusted EBITDA (EBITDA Loss) as EBITDA (EBITDA Loss) reduced by the non-cash impact of equity earnings from equity method investments and gain on sale of Marshall Mine LLC, increased by cash distributions from equity method investments, loss on early settlement of a long-term receivable and loss on change in estimate, asset retirement obligation. The Company believes that the Consolidated Adjusted EBITDA measure is less susceptible to variances that affect the Company's operating performance.

When used in conjunction with GAAP financial measures, the Company believes these non-GAAP measures are supplemental measures of operating performance which explain the operating performance for the period-to-period comparisons and against competitors' performance. Generally, the Company believes these non-GAAP measures are less susceptible to variances that affect operating performance results. The Company expects the adjustments to EBITDA (EBITDA Loss) and Adjusted EBITDA (EBITDA Loss) in future periods will be generally similar. These non-GAAP measures have limitations as analytical tools and should not be considered in isolation or as a substitute for analyzing our results as reported under GAAP.



Appendix E: Adjusted EBITDA Reconciliation to Net (Loss) Income

	Three Months Ended June 30,				Six Months Ended June 30,			
(in thousands)		2023		2022		2023		2022
Net loss(1)	\$	(5,856)	\$	(326)	\$	(13,364)	\$	(3,359)
Depreciation, amortization, depletion and accretion		2,428		1,588		4,565		3,094
Amortization of Upfront Customer Consideration		127		127		254		254
Interest expense, net		308		54		598		118
Income tax benefit		_		_		(33)		_
(EBITDA loss) EBITDA		(2,993)		1,443		(7,980)		107
Cash distributions from equity method investees		462		3,100		1,100		5,613
Equity earnings		(462)		(2,389)		(1,100)		(3,222)
Gain on sale of Marshall Mine, LLC		_		_		(2,695)		_
Loss on early settlement of long-term receivable		_		_		_		535
Loss on change in estimate, asset retirement obligation		_		34		_		34
(Adjusted EBITDA loss) Adjusted EBITDA	\$	(2,993)	\$	2,188	\$	(10,675)	\$	3,067

⁽¹⁾ Included in Net loss for the three and six months ended June 30, 2023, was \$0.6 million and \$4.9 million, respectively, of transaction and integration costs incurred related to the Arq Acquisition. For the three and six months ended June 30, 2022, was \$0.4 million and \$1.2 million, respectively, of transaction and integration costs incurred related to the Arq Acquisition. Additionally, for the six months ended June 30, 2023, Net loss included \$1.7 million of Arq payroll and benefit costs.