



**Advanced Emissions
Solutions, Inc.**

Advanced Emissions Solutions Announces Acquisition of Arq

February 1, 2023

Nasdaq: 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”) and/or Arq Limited (“Arq”) 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 Arq (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. 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 announcement of the transactions 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 meet Nasdaq’s listing standards following the consummation of the Transaction; 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 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; ongoing effects of the COVID-19 pandemic and associated economic downturn on operations and prospects; 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.

Investment Highlights



Synergistic acquisition repositions business for growth through higher value products

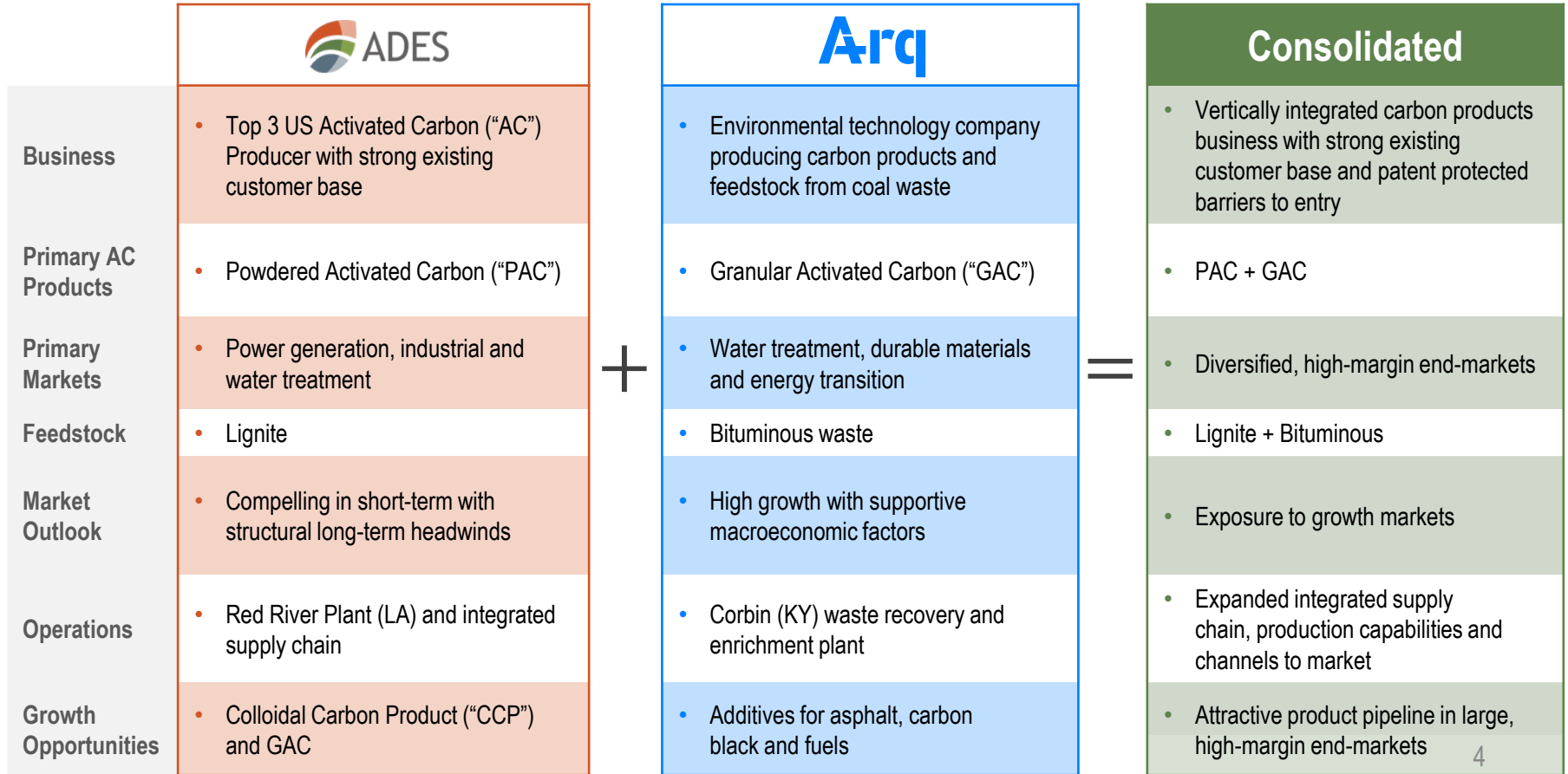
Addressing growing and underserved markets for critical materials

Competitive advantage via product performance, cost and environmental benefits

Reduced execution risk through the combination of companies' existing technical, operational and sales capabilities

Strong balance sheet and market position support business plan execution

Synergistic Acquisition Overview



Transaction Terms Comparison

Initial Transaction Terms

Final Transaction Terms

Pro Forma Ownership

- ADES – 49.5%
- Arq – 40.5%
- PIPE – 9.0%
- Warrants – 1.0%⁽¹⁾

- ADES – 59.2%
- Arq – 28.0%⁽²⁾
 - Legacy Arq shareholders will be issued a combination of Common and Preferred Stock; Preferred Stock is automatically convertible to common-stock upon shareholder vote
- PIPE – 11.8%
- Warrants⁽¹⁾ – 1.0%

Capital

- ADES shareholders provided with option to receive a one-time cash dividend or additional shares in the newly combined entity
- ADES will issue additional equity to PIPE investors for \$20 million cash proceeds at \$4.67 per share on a \$200 million post-money valuation
- Obtained binding debt financing commitment of \$10 million

- ADES issued additional equity to PIPE investors for \$15 million cash proceeds at \$4.00 per share
 - Arq BOD and management along with certain significant investors are investing in the PIPE
- Obtained debt financing of \$10 million

⁽¹⁾ Debt provider will obtain penny warrants for 1% of the pro-forma entity

⁽²⁾ Preferred stock includes a coupon of 8% that will increase by 200 basis points at determined intervals if not previously converted due to a shareholder vote

Leadership and Manufacturing Team



Greg Marken – Chief Executive Officer

Serves as President, CEO and Treasurer of ADES since July 2020. Prior to his appointment, Greg served as the CFO, Treasurer and Secretary from March 2018 through June 2020. Greg has more than 17 years of leadership experience across various roles and industries.



Morgan Fields – Chief Accounting Officer

Joined ADES in 2019 and currently serves as CAO. Morgan has more than 15 years of accounting experience and previously served as the CAO for Rezolute, Inc. & as an Assurance Director for RSM US LLP.



Paul Groves – New Products Commercialization

Paul has over 30 years of experience in the Energy & Resources markets. Paul is a former Managing Director at Petrofac, along with previous senior roles at BG Group, Shell and Alcan.



CK Lane – Operations Director

CK has over 42 years of experience in mining, ranging from hourly employee to COO and Senior VP managing 2,400 employees. Prior to Arq, CK was Managing of CKL Consulting, serving the mining and energy industry.



Dennis Sewell – Vice President of Manufacturing

Joined ADA Carbon Solutions in 2009 and currently serves as the VP of Manufacturing. Dennis has more than 25 years of industrial manufacturing experience and has served in various leadership roles within the company.



Oscar Velasquez – Vice President of Sales

Joined ADA Carbon Solutions in 2016 and currently serves as VP of Sales. Oscar previously served as our National Sales Manager and has more than 7 years of leadership experience in business development and product life cycle management.



Joe Wong – Chief Technology Officer

Joined ADES in 2018 and currently serves as CTO. Joe has over 36 years of industry leadership experience in R&D and product development in specialty materials. Prior to joining ADES, Joe served as CTO for ADA Carbon Solutions.

Board of Directors



Spencer Wells – Chairman of the Board and Compensation Committee
Spencer has over 20 years of experience as an investor and financial analyst and is a founding Partner of Drivetrain Advisors. Previously, Spencer served as a Senior Advisor and Partner at TPG Special Situations Partners. He also served as a Partner and Portfolio Manager at Silverpoint Capital.



Gilbert Li – Director
Gilbert has over 20 years of experience and is the Co-Founder and Managing Partner of Alta Fundamental Advisers. Prior to Alta, Gilbert worked for JMB Capital Partners, Merrill Lynch, Watershed Asset Management and J.P. Morgan Investment Management.



Jeremy Blank – Director
Jeremy currently serves as the CIO of Community Fund and was a Partner at York Capital Management where he helped build the firm's global credit and private equity businesses. Prior to York, Jeremy worked at Morgan Stanley as a Vice President, a credit analyst and an investment banker.



Julian McIntyre – Director
Julian is the founder of Arq Limited which he started in 2015. Julian is a serial entrepreneur and was the founder of Rift Petroleum, Gateway Communications and founding shareholder of Greenfire Resources.



Richard Campbell-Breeden – Director
Richard currently serves as Chairman of Arq and is the founder of Omershorn Capital Advisors. Previously, Richard was employed with the Goldman Sachs Group serving as its Vice Chairman and Managing Director of the Asia Pacific Ex-Japan APEJ, Hong Kong Investment Banking Division.



Taylor Simonton – Chair of the Audit Committee
Taylor has over 45 years of experience in financial accounting and auditing, including 35 years at PwC. Taylor has extensive public and private company board experience, having served on 7 public and 2 private companies' boards of directors and as Audit Committee Chair at 8 of those companies.



Carol Eicher – Chair of the Nominating and Governance Committee
Carol has extensive public company executive leadership and operational expertise, having worked more than 35 years in the chemical industry. Carol held senior management roles with Dow Chemical Co., Rohm and Haas Co., Ashland, Inc. and E.I. DuPont de Nemours and Co.

Outlook & Key Milestones

2023

- Modify and integrate Red River and Corbin sites to enable GAC production at scale
- Secure lead GAC customers
- First sales of Arq powder™ as additive for asphalt and carbon black

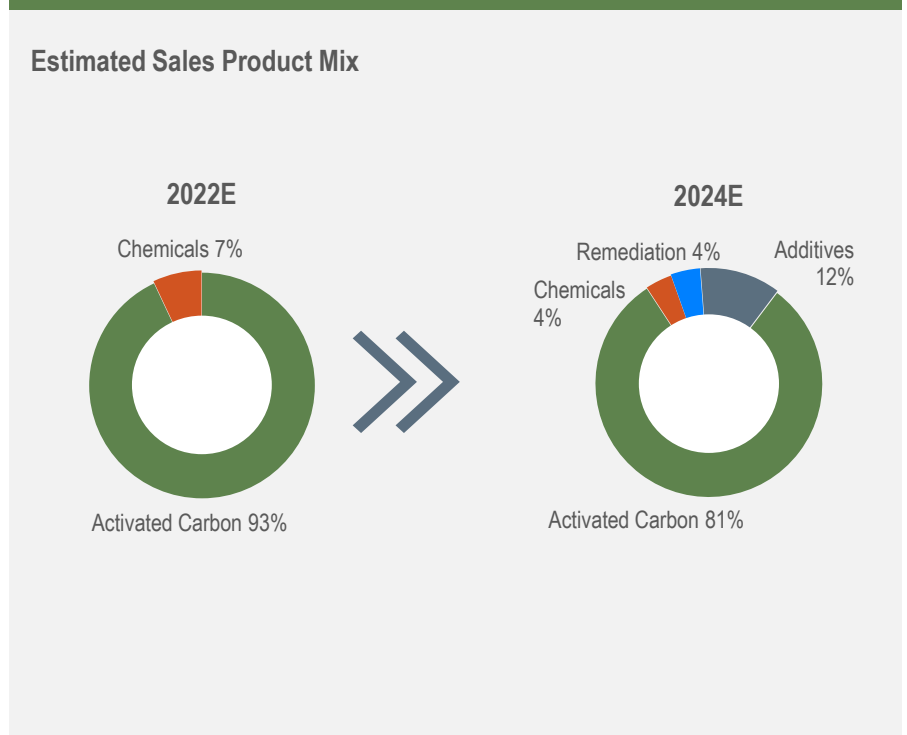
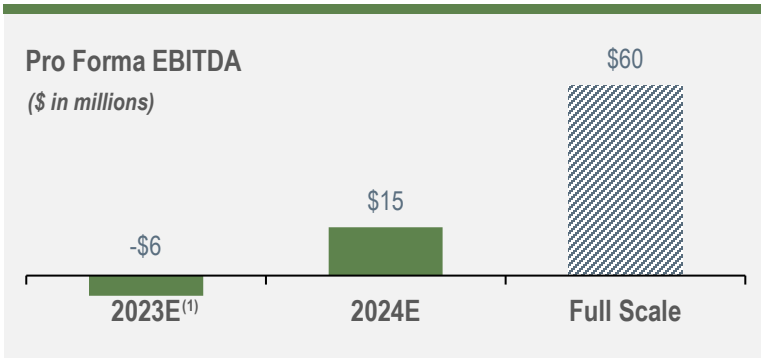
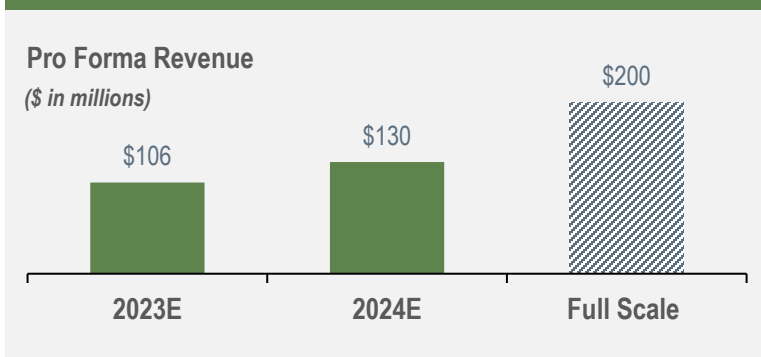
2024

- Produce and sell first GAC products from Arq powder™
- Commercial scale operations at Corbin
- \$15 million estimated EBITDA

2025

- Full-year production and sales of GAC related to initial capabilities
- Development of expanded GAC production capabilities
- Expand market, product and geographic diversity for AC products

Pro Forma Financial Profile: Significant Growth Opportunities



- Fully funded \$95M capital program used to upgrade infrastructure starting in 2023
- As of acquisition date the Company retains ~\$86M of existing Federal tax credits

- Estimated Transaction Date of January 1, 2023
- Pro forma includes the combination of the Arq Limited business and Advanced Emissions Solutions and results of operations pursuant to the combined entity business plan, including anticipated capital improvements and related impacts
- (1) Excludes all professional fees associated with the Acquisition transaction