INVESTOR PRESENTATION
Rodman & Renshaw 19th Annual Global Investment Conference

September 11, 2017
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 the amount and stability of future cash flow, amount and timing of production and sale of Refined Coal ("RC"), Tinuum Group, LLC and Tinuum Services, LLC cash flow and ability to make distributions and Tinuum Group's ability to lease or sell remaining RC facilities; future revenues, expenses, cash flow, liquidity, and other financial and accounting measures; 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, including tax rates, 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 and sell 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.
CORPORATE SNAPSHOT: INNOVATING A CLEANER TOMORROW

REFINED COAL (RC)
- Tinuum Group, 42.5% owned
- Tinuum Services, 50% owned
- Royalty: M-45™ Licenses

EMISSIONS CONTROL (EC)
- Chemicals for Coal Emissions
- Equipment for Coal Emissions
- 37 U.S. Patents, 13 Pending, 3 Int'l Patents, 9 pending

TICKER: NASDAQ: ADES
MARKET-CAP: ~$218M (1)
SHAREHOLDERS: Significant institutional ownership

CATIONAL ALLOCATION:
Evaluation of shareholder return through dividends, stock buy or accretive M&A opportunities

(1) Market capitalization based on proximity to 9/1/17 closing price
(2) Based upon common shares outstanding as of August 1, 2017 and Form 13-F filings as of June 30, 2017
INVESTMENT SUMMARY

SOLID AND STABLE CASH FLOWS
On average, current business expected to deliver at least $50M to $60M annually through 2021

INCREMENTAL CASH FLOWS
Potential to more than double current cash flows over next few years through 2021

NICHE INDUSTRY LEADER
Uniquely position as trusted partner to America’s top energy producers focused on clean coal technology

PLATFORM FOR GROWTH
No debt, strong balance sheet, streamlined organization, rebuilt governance and infrastructure and proven management team

STRONG EMISSION CONTROL INTELLECTUAL PROPERTY
Chemicals technology commercialized into a growing, higher margin, recurring revenue business

RETURN TO SHAREHOLDERS
Initiated $0.25 per share dividend and repurchased nearly 1.4 million shares through a successful tender offer, combining for over $23 million returned to shareholders this year

EVALUATE M&A OPPORTUNITIES
Disciplined evaluation of potential acquisition opportunities in the U.S. with potential merits including synergies to our EC segment, EBITDA positive, and enablement of tax asset monetization
HISTORICAL EVENTS & NEW BEGINNING

2011
Launch of Refined Coal

2012
Equipment Systems and Manufacturing Started

2013 - 2014
Speculative R&D Investments
Poor Margin Equipment Bubble

2014
Identification of Financial Statement Matters
Cash Burn

2015 - 2016
Transformation Restructure Re-position

2017
Lean Model and Focused on Recurring Cash Flow

NEW MANAGEMENT ACCOMPLISHMENTS

TRANSFORMATION
Simplified business model and shed poor performing assets
Built diverse new team
Commercialized patents

RESTRUCTURE
Reduced costs by over 70%
Improved balance sheet; no debt

RE-POSITION
Re-listed on NASDAQ with improved investor relations
Supported new team & approach at Tinuum resulting in obtaining investors for three additional RC facilities
Executing capital allocation initiatives to enhance shareholder value
COAL USE: A REALITY MOVING FORWARD

U.S. NET ELECTRICITY GENERATION (BILLION KILOWATTHOURS)

World Net Electricity Generation (Billing Kilowatthours)


2017 PRIORITIES

OBTAIN NEW TAX EQUITY INVESTORS FOR REFINED COAL:
Nurture current & add additional sales channels
Dedicate additional resources
Leverage improving political and refined coal tax equity market

GROW EMISSIONS CONTROL & CONTINUE TRANSFORMATION:
Sell recently commercialized chemicals
Further monetize valuable intellectual property

CAPITAL ALLOCATION PLAN:
Executed stock buy-back for $12.9 million
Declared and paid two quarterly dividends of $0.25 per share in 2017
Evaluating M&A opportunities that fit within our previously outlined criteria
TINUUM GROUP
Leading developer and operator of Refined Coal production facilities that qualify for incentives under §45 of the tax code.

Economic benefits of the Refined Coal business include the operating results and the related tax incentives.

Opportunity to use NOx and mercury emissions reductions as part of the investor’s clean energy program.

Investor may achieve positive after-tax cash flow within the first few quarters.

RC MODEL: TAX-EQUITY INVESTMENT ECONOMICS

INVESTOR IN-FLOWS

3rd party investor leases or purchases RC facility and is responsible for the production and sale of Refined Coal.

- ~$6.90/ton Production tax credits
- ~$2.28/ton Tax benefit of investor outflows (assuming a 35% tax rate)
- ~$9.18/ton Total Investor In-flows

INVESTOR OUT-FLOWS

- ~$3.00/ton Rental Payments
- ~$3.50/ton Operating Expenses
- ~$6.50/ton Total Investor Out-flows

Various operating, chemical vendor, engineering and utility payments and Tinuum Services.

~$9.18/ton Total Investor Out-flows

42.5% ADES
42.5% nexgen
15.0% Goldman Sachs
REFINED COAL FACILITIES TODAY AND TOMORROW

FULL-TIME OPERATIONS ROADMAP

Not Operating and Not Invested

14 RC facilities – installed and waiting for investor or yet to be installed

Operating and Invested

14 RC facilities leased/sold
(40-50 MT/year)

POTENTIAL

28 RC facilities
(~100 MT/year)

RC Facility information as of June 30, 2017, which does not include additional invested facility announced in July 2017

(1) Certain facilities would require capital investment to transition to operating status
EXPECTED FUTURE NET RC CASH FLOWS\(^{(1)}\)

- Based on 14 invested facilities as of June 30, 2017 and includes all net RC cash flows of ADES \(^{(1)}\)
- Results in expected net RC cash flows of $225M to $250M to ADES in total through 2021 \(^{(2)}\)
- Each additional refined coal facility could add between $5-7 million annually
- Obtained third party tax equity investors for RC facilities in March and July 2017 \(^{(3)}\)

\(\text{(1)}\) Net RC cash flows includes the impact of the Company's federal and state tax payments as well as interest payments
\(\text{(2)}\) The projection is based on the following four key assumptions: 1) Tinuum Group continues to not operate retained facilities; 2) Tinuum Group does not have material CapEx or unusual operating expenses; 3) tax equity lease renewals are not terminated or repriced; 4) coal-fired generation remains consistent
\(\text{(3)}\) Completion of bringing in new tax equity investor in a RC facility in July 2017 is not included in expected future cash flows.
\(\text{(4)}\) 2017 cash flows are from July 1, 2017 – December 31, 2017
REFINED COAL ENVIRONMENT

The refined coal business is proven and yields many benefits to the utilities, investors and the environment, however there are hurdles to overcome.

RC Tax Equity Investors include Goldman Sachs, Waste Management, DTE Energy, Arthur Gallagher, Fidelity Investments and many others.

There are benefits IF hurdles can be overcome.

**HURDLES**
- Coal Reputation and Political Stigma
- Federal Tax Reform
- Transaction Complexity
- Accounting Treatment
- Investor Business Priorities

**BENEFITS**
- Support Reliable Cleaner Energy
- Net Income and EPS Improvement
- Uniquely Strong Cash Returns
- Rapid Return Of Capital
EMISSIONS CONTROL: CURRENT OPPORTUNITY

CURRENT FOCUS MERCURY CONTROL
Mercury control regulation since 2015/2016; with large capital investments complete
Recurring consumables needed to control mercury

$300M - $500M

ANNUAL MARKET

$20M - $40M

ADES ANNUAL REVENUE GOAL(1)
Consumables market is $300M - $500M annually
$20M - $40M annual target revenue goal for ADES over the next one to two years

COMPETITIVE DIFFERENTIATORS
• Cost effective and simple alternative
• Less equipment corrosion
• Turn-key with world-renowned experts

COMPETITIVE ADVANTAGES
• Strong balance sheet
• Patented technology
• Low operating cost model
• Recurring revenue model

CHALLENGES
• Displacement of incumbent competitors
• Change adverse customers

(1) Annual Market and Annual Revenue Goal are estimates based on the Company's internal estimates of overall market and current products for the mercury control consumables market
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<tr>
<th>Invest Organically</th>
<th>Return Capital</th>
<th>Grow Opportunistically</th>
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<td><strong>Invest Organically</strong></td>
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<tr>
<td>Organic investment and development of Emissions Control business, specifically consumable chemicals</td>
<td><strong>Dividends</strong></td>
<td>Executed stock buy-back, repurchasing $12.9 million in common stock</td>
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<td><strong>Paid two quarterly dividends of $0.25 per share with annualized yield of 9.7% (1)</strong></td>
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(1) Annualized yield based upon closing stock price as of September 1, 2017
2017 FINANCIAL REVIEW

REVENUES

June 30, 2017: $25
June 30, 2016: $9

Three Months Ended

June 30, 2017: $33
June 30, 2016: $31

Six Months Ended

EQUITY METHOD EARNINGS

June 30, 2017: $10
June 30, 2016: $14

Three Months Ended

Six Months Ended

June 30, 2017: $24
June 30, 2016: $19

ROYALTIES

June 30, 2017: $2
June 30, 2016: $1

Three Months Ended

Six Months Ended

June 30, 2017: $4
June 30, 2016: $2

OTHER OPERATING EXPENSES

June 30, 2017: $4
June 30, 2016: $8

Three Months Ended

June 30, 2017: $9
June 30, 2016: $16

Six Months Ended

NET INCOME BEFORE TAXES

June 30, 2017: $10
June 30, 2016: $8

Three Months Ended

June 30, 2017: $24
June 30, 2016: $12

Six Months Ended

CASH & CASH EQUIVALENTS

June 30, 2017: $26

As of

December 31, 2016: $13
WHY ADVANCED EMISSIONS SOLUTIONS?

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THANK YOU