

Creating a Future with Cleaner Coal



ADA
ENVIRONMENTAL SOLUTIONS

NASDAQ:ADES

Investor Presentation
December 2011

Disclaimer

Please note that this presentation contains 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, but will not necessarily be limited to, statements or expectations regarding the growth in markets for our products and services; amount and timing of revenues, earnings, operating income, cash flows and other financial measures; timelines for our projects; scope, timing and impact of current and anticipated regulations and legislation; future supply and demand; the number of refined coal facilities to be installed by year end and the amount of refined coal capable of being produced from such facilities; 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 in laws and regulations, government funding, prices, economic conditions and market demand; timing of regulations and any legal challenges to them; 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 operations to effectively address expected growth in our target markets; additional risks related to Clean Coal Solutions, LLC ("Clean Coal") including failure of its leased facilities to continue to produce coal which qualifies for IRS Section 45 tax credits, termination of the leases for such facilities, decreases in the production of refined coal by the lessee, seasonality and failure to build or monetize new CyClean and M45 facilities to meet the Section 45 tax credit placed-in-service date; issues arising out of Clean Coal's due diligence review of the M45 technology and our inability to address those concerns or negotiate, execute and close on definitive agreements; availability of raw materials and equipment for our businesses; loss of key personnel; intellectual property infringement claims from third parties; and other factors discussed in greater detail in our filings with the Securities and Exchange Commission (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.

Investment Highlights

- Portfolio of technologies allows existing coal-fired power plants to operate cleaner
- Multiple technologies target mercury, SO₂, NO_x, and CO₂; demonstrated ability to reduce mercury emissions by 80-90%
- Diverse business model—systems, services and technology licensing
- Large market opportunity
 - coal-fired generation comprises ~50% of U.S. power
 - new EPA regulations driving demand for mercury and other pollutant reduction technologies
 - ADA offers low CAPEX solutions for coal plant operators
- Two Refined Coal systems currently operational
- 26 additional Refined Coal systems expected to be “placed-in-service” by year-end 2011 for a total RC capability of \$50 MM in annual EBIT for 10 years
- 2011 nine-month revenues up 116%, operating income of \$3.1 million
- May 2011 equity investment in ADA JV by The Goldman Sachs Group affiliate

ADA's Emissions Solutions for the Existing Fleet

- Supply emission control technologies based upon minimal capital cost for new equipment
 - Doesn't require 10-20 years of extended plant life needed to justify large equipment costs
- Low CAPEX alternatives trade variable operating expenses for fixed capital costs
 - Allows continued operation of the plants that may otherwise be considered for closure
 - Provides continuous revenues for ADA vs. one time equipment sales
- Examples for a 250 MW Plant:
 - High CAPEX: Wet Scrubber \$100+ mm
 - ADA Low CAPEX alternatives
 - ACI: \$1 mm
 - DSI: \$3 mm
 - Refined Coal: Controls mercury at no cost to utility
 - Enhanced Coal: No capital equipment; \$2-\$4 mm per year in increased fuel costs to the power producer

ADA's Low CAPEX Approach to Emissions Control Technology

Emission Control Equipment
(NO_x, SO₂, Particulate)



ACI System
for Mercury



ADA Segment Overview

Refined Coal

- Two Refined Coal technologies reduce mercury and NOx emissions and qualify for Section 45 Tax Credits
- 42.5% stake in Clean Coal Solutions JV with NexGen & Goldman Sachs
 - 2 CyClean facilities produced \$20 MM in revenue, \$9MM in operating income for ADA in first year of operation
 - Up to 26 new CyClean and M45 systems being installed by year-end
 - Total RC activities capable of producing \$50 MM in EBIT for ADA for 10 years



Emissions Control Systems

- Activated Carbon Injection systems addressing mercury emissions for coal-fired power plants
- ACI systems installed on 55 boilers to date—in a ~ 35% market share
- Pending Air Toxics Rule expected to create \$500 mm market for ACI
- Cross-State Air Pollution Rule to create demand for DSI systems for SO₂ control
- Option for 49.9% participation in Activated Carbon Plant capacity additions



Technology

- License agreement with Arch Coal for enhanced coal technology to reduce mercury emissions
- Developing solid sorbent capture technology to capture CO₂ from flue gas in coal-fired boilers





Clean Coal Solutions, LLC

Refined Coal Reduces Mercury

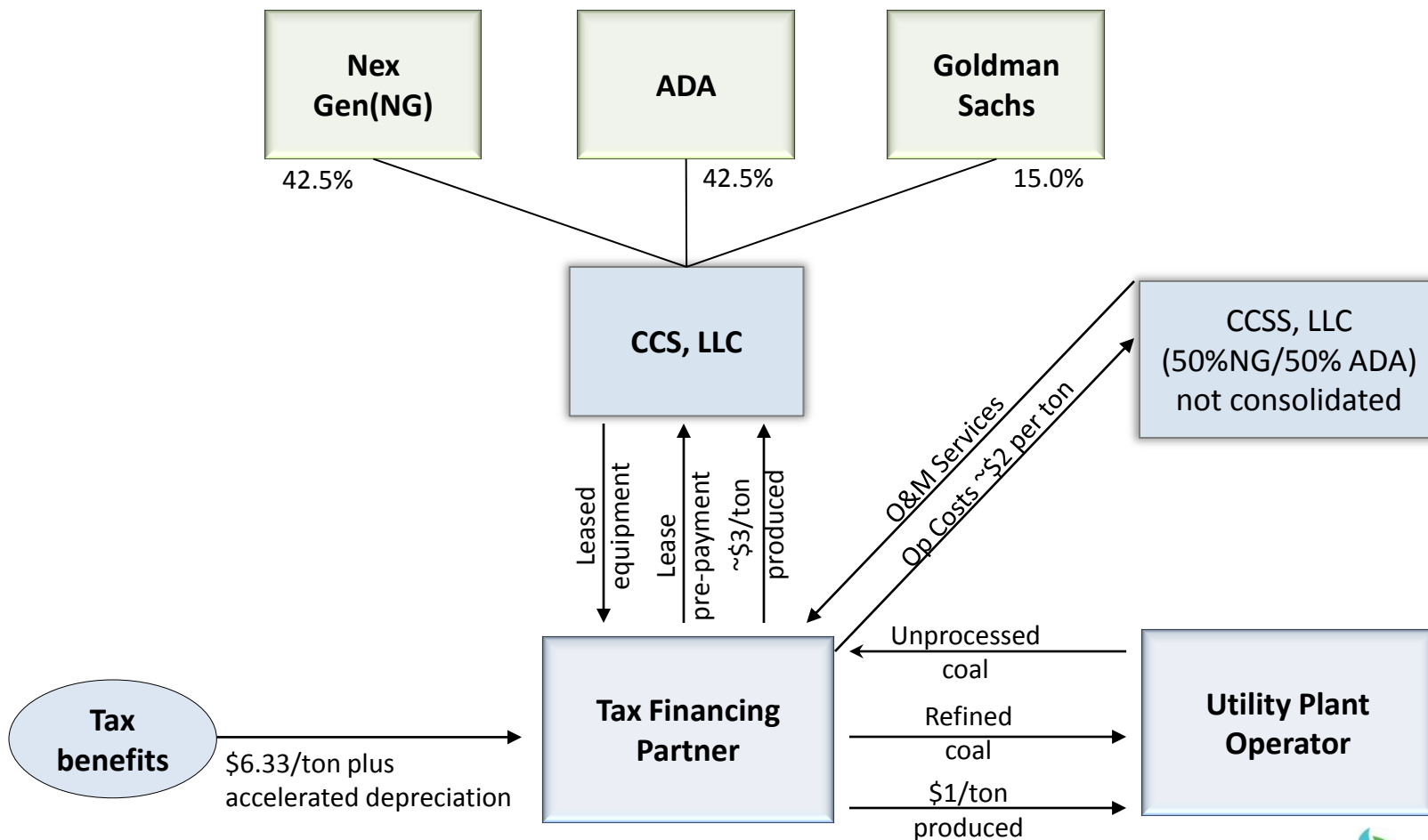
- Clean Coal Solutions (CCS): ADA JV with NexGen Refined Coal LLC
 - 15% equity interest in CCS sold to a Goldman Sachs affiliate in May for \$60 mm
- CyClean – patented technology enhances combustion of PRB coals in cyclone boilers and reduces mercury and NOx emissions
- Two systems have been operating at two power plants since June, 2010
 - Received \$9 mm in prepaid rent from monetizer (GS)
 - Generated >\$20 mm in revenues and \$9 mm in operating income to ADA in first full year of operation
 - Expected to generate approximately \$7 mm (\approx \$1/ton of RC) in pretax earnings per year for ADA for the next eight years



Refined Coal Growth Opportunity

- In December 2010 Congress extended deadline to install new Refined Coal facilities until the end of 2011
 - New Air Toxics Rule creating additional demand for Refined Coal
- Currently fabricating up to 20 CyClean facilities
 - 14 have been installed and operated at power plants to date
 - Installation/operation of remaining systems scheduled to be completed this year
 - Expect most will have permits and full operations in first half of 2012
- CAPEX Financing:
 - \$15mm commercial bank line of credit
 - \$11mm received to date in deposits on systems from monetizers
 - \$20 mm/yr in JV revenues from operations of first two units
- If all planned CyClean facilities become fully operational, CCS could generate >30 mm tons of RC producing \$30mm in EBIT for ADA for next 10 years

CCS Project Monetization Overview



M45 Refined Coal Technology

- New technology developed by ADA and demonstrated full-scale in September expands market for ADA's Refined Coal beyond cyclone boilers
- Technology is in the process of being licensed to Clean Coal Solutions; ADA will receive
 - Prepaid royalty payments
 - Royalties on Refined Coal produced with M45 Technology
 - 42.5% distribution of profits from CCS
- Building 6 facilities expected to be installed before year end
 - **First M45 facility placed in service achieving reductions of >30% NOx and >70% mercury**
 - **2 CyClean facilities successfully placed in service using M45 Technology, giving Clean Coal flexibility in choosing to use some CyClean facilities at larger plants**
- If all planned M45 facilities become operational, they are expected to generate \$20mm in EBIT for ADA for the next ten years



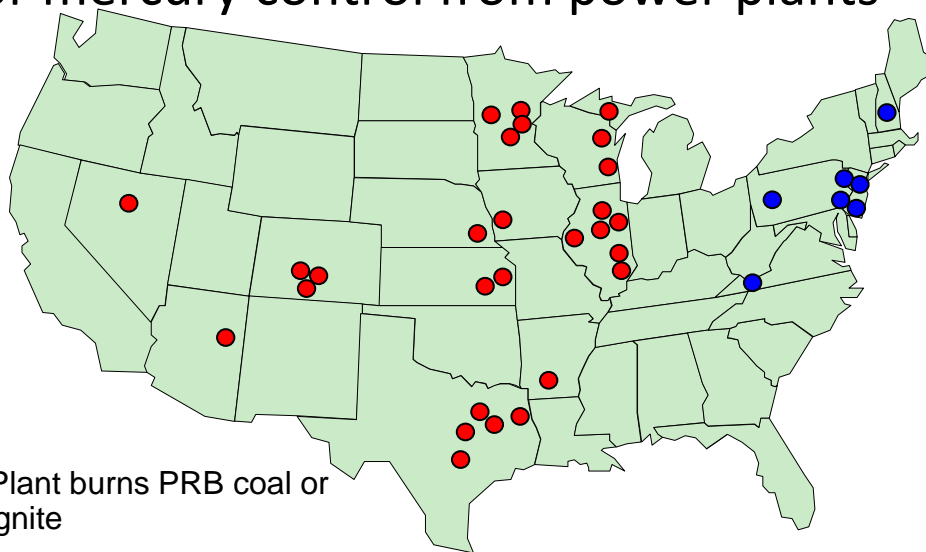


Emissions Control Systems

ADA Commercial ACI Systems

> 20 GW Sold for Mercury Control

- Installed/installing ACI systems on 55 boilers at coal-fired power plants
 - Over 35% market share of 159 boilers served for mercury control from power plants

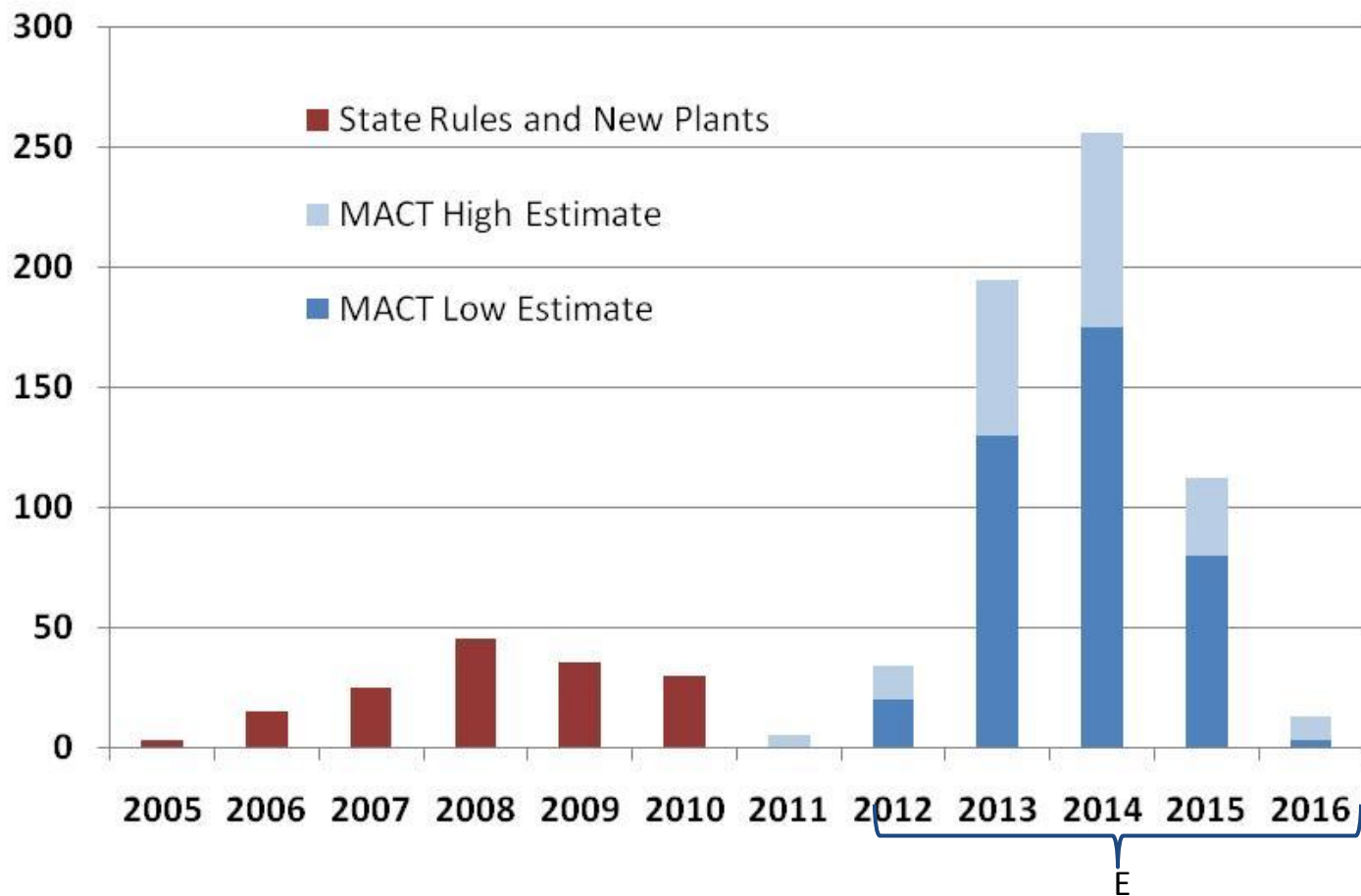


- Plant burns PRB coal or lignite
- Plant burns bituminous



Emission Control: Growth Expected in ACI Equipment

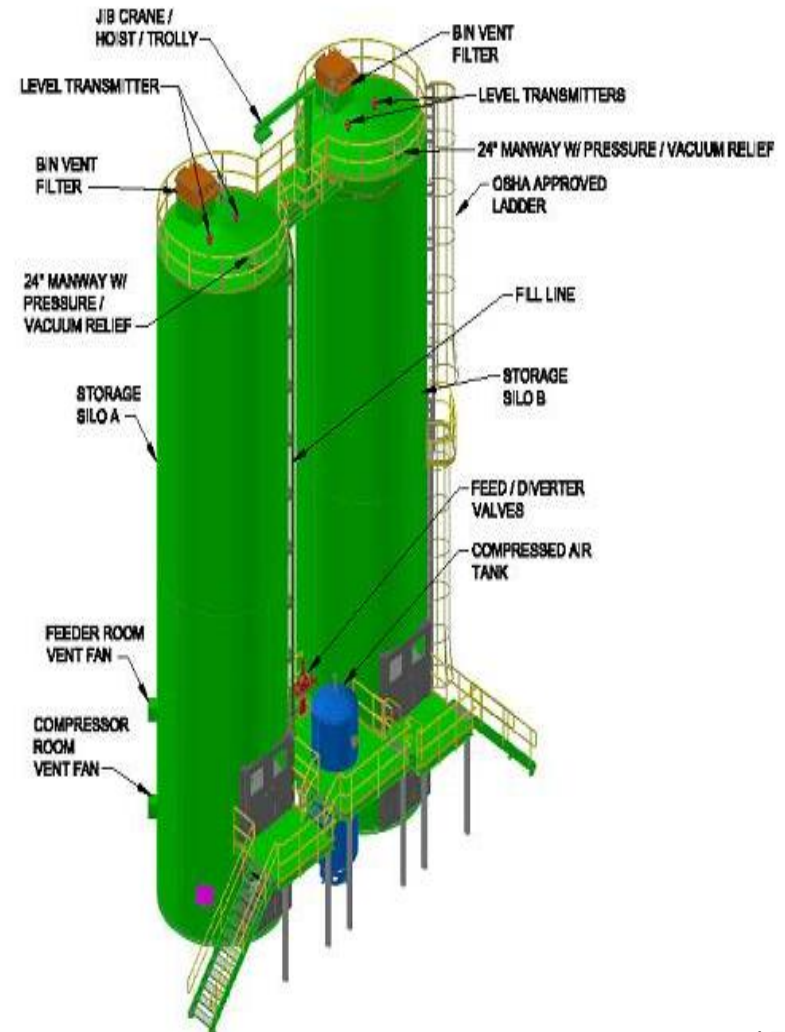
- Air Toxics Rule is scheduled to be final on December 16, 2011 and is expected to create \$500 MM market for ACI



Control of Acid Gases

HCl, SO₂, SO₃

- Cross-State Air Pollution Rule (CSAPR) creates a market for SO₂ control starting in January 2012
- Air Toxics Rule identifies HCl and SO₂ as surrogates for acid gases
- ADA provides dry sorbent injection (DSI) systems as a low-cost option to wet scrubbers
- Equipment costs \$2-3 mm for average size plants
- EPA predicts over 200 systems will be needed by 2015





Technology

Mercury Control: License to Arch Coal

- Designed to enable Arch's PRB coals to burn with lower emissions of mercury and other metals
- \$1.00-4.00/ton in benefits to customer
- Royalty agreement – payments to ADA of up to \$1.00/ton based on premium of Enhanced Coal sales
- Air Toxics Rule could create a market for Enhanced PRB Coal through 2015
- Full-scale tests proving effectiveness, planning additional demonstrations



CO₂ Capture

- Developing solid sorbent capture technology to capture CO₂ from flue gas in conventional coal-fired boilers
- DOE and industry funding:
 - Phase I - \$3.8 mm R&D program awarded in Nov. 2008 to develop technology; successful field tests at 1 KW pilot plant
 - Phase II - \$19 mm, 51-month contract awarded October 2010 to scale-up technology to 1 MW; key step toward commercialization
- Advantages over competing technologies:
 - For customer: lower cost and less parasitic energy
 - For ADA: continuous revenues from sale of proprietary chemical sorbents



Financial

Summary of Recent Financial Results

	Nine Months ended 09/30/11 ⁽¹⁾	Nine Months ended 09/30/10 ⁽²⁾	Year Ended 12/31/10
Total Revenues	\$28.7 MM	\$13.3 MM	\$22.3 MM
Gross Margin	69%	54%	61%
Operating Income (Loss)	\$3.1 MM	(\$15.5) MM	(\$21.0) MM
Net Loss (per share)	(\$33.6) MM (\$4.41)	(\$12.4) MM (\$1.68)	(\$15.5) MM (\$2.09)

(1) 2011 nine-month period included \$41.7 MM in arbitration expenses, \$4.2 MM in non-routine litigation-related legal expenses, and \$0.9 MM in interest expense .

(2) 2010 nine-month period included \$16.1 MM in non-routine litigation-related legal expenses.

Balance Sheet Highlights

	As of 9/30/11 ⁽¹⁾	As of 12/31/10
Cash & Cash Equivalents	\$9.6 MM	\$9.7 MM
Working Capital (Deficit)	(\$12.0) MM	\$10.1 MM
Shareholders' Equity	\$1.9 MM	\$13.4 MM
Shares Outstanding ⁽²⁾	7.7 MM	7.5 MM

(1) Working capital decreased primarily as a result of payments and obligations in the Norit Settlement, partially offset by proceeds from the sale of a 15% interest in CCS to an affiliate of Goldman Sachs.

(2) Shares outstanding at November 28, 2011 were ~10 MM, reflecting completion of public offering in October 2011 and exercise of the underwriters over-allotment option in November 2011.



4th Quarter Financial Transactions

- Capital Raise, managed by Lazard, Baird, and JMP
 - \$28.4 Million on the sale of 2 Million Common Shares with no Warrants
 - \$4.3 Million in exercise of over-allotment option on 300k shares
- Settled Indemnity Claim with Energy Capital Partners
 - Eliminated \$33 Million in long-term liability
 - Will show ~ \$19 Million gain in Q4
 - Gave up ~ 21% ownership in AC plant
 - No longer recording losses from JV
 - Retained option to invest up to 49.9% in new capacity additions
- \$5 Million in prepaid royalties expected to be earned on M-45 technology
- Current cash at 11/30/11 ~ \$33 Million

Catalysts for Company

■ Past 6 Months

- May: EPA publishes draft of Mercury and Air Toxics Standard
- May: GS pays \$60 mm for 15% interest in Clean Coal Solutions
- July: EPA finalizes Cross-States Air Pollution Rule
- August: Settlement of Norit Arbitration
- September: Successful M45 tests expand Refined Coal opportunity
- October: Raised approximately \$28.4 Million in registered direct offering
- November: Settled \$33 Million indemnity claim

■ Next 6 Months

- Up to 26 Refined Coal facilities expected to be installed by year end
 - Capable of producing >50 mm tons of RC per year for 10 years
 - Expected to produce \$50 Million in pretax earnings for next 10 years
- December 16: EPA scheduled to finalize Mercury and Air Toxics Standard
 - Expect new contracts for ACI and DSI equipment



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A Leader in Clean Coal Technology

