

Creating a Future with Cleaner Coal



NASDAQ:ADES

Investor Presentation

March 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 amount and timing of future tax credits, revenues, operating income, cash flows, legal expenses and other financial measures; timelines for our projects; scope, timing and impact of anticipated regulations and legislation; future supply and demand; and timing of the Norit arbitration. 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; negative outcomes in the Norit Arbitration; impact of competition; lack of working capital; 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; additional risks related to ADA Carbon Solutions including lack of continued funding and failure to raise additional financing, demand of payment on existing loans and other obligations, inability to obtain permits, our lack of control and further dilution of our interest, changes in the costs and timing of full commercial operations at the AC plant; additional risks related to Clean Coal Solutions, LLC 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 new facilities to meet the recently extended Section 45 tax credit placed-in-service date for IRS Section 45 tax credits; our inability to come to terms with additional industry partners in our DOE CO₂ capture technology project; availability of raw materials and equipment for our businesses; loss of key personnel; 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.

Leader in Clean Coal Technology

Investment Overview

- Primary Market: 1,100+ coal-fired utility boilers in the U.S.
 - Coal provides 50% of electricity in the U.S.
 - Existing & pending regulations for mercury emissions
- Multiple sources of near & long-term revenues & income
 - Refined coal
 - Emission control equipment & consumables
 - License to Arch Coal
 - CO₂ capture technology
- Q3'10 revenues up 101% from Q3'09 to \$7.5 mm
 - Adjusted net income of \$1.2 mm or \$0.16 per share (See slide 16)
- 7.6 mm shares outstanding
- Favorable litigation settlement with Calgon Carbon; \$7.2 mm payment to ADA in Q4'10

Corporate Structure

ADA-ES

- ACI Systems
- License to Arch Coal
- Flue Gas Conditioning
- Acid Gas Control Technology
- CO₂ Capture
- DOE & Industry Consulting

Consolidated

Equity Method

Clean Coal Solutions (CCS)

Products:

- Refined Coal

JV Partner:

- NexGen Resources
- ADA Ownership: 50/50

ADA Carbon Solutions (ACS)

Products:

- Activated Carbon

JV Partner:

- Energy Capital Partners
- ADA Ownership on first line: currently 26%

Emission Control: Near-Term Market Drivers

Issued and Pending Federal Regulations

U.S. EPA Industrial Boiler MACT (ISSUED)	U.S. EPA Cement MACT (ISSUED)	U.S. EPA Utility MACT (PENDING)
<ul style="list-style-type: none">■ Issued – 02/21/11*■ Covers 600 coal-fired boilers■ Market Requirements:<ul style="list-style-type: none">— ACI Systems ↑ several hundred— AC ↑ 50-100 MM lbs/year	<ul style="list-style-type: none">■ Issued 08/09/10*■ Could require ACI & AC on up to 90 cement kilns	<ul style="list-style-type: none">■ Will cover 187 hazardous air pollutants■ Should result in 85-95% limit for mercury■ Draft submitted to White House's Office of Management and Budget - 02/19/11■ Final expected 11/11*— 3 years to implement

* 36 months to become compliant from issuance date

Refined Coal

- Clean Coal Solutions: JV with NexGen Resources
- Capitalizing on Section 45 tax credits
- CyClean – patented technology enhances combustion of PRB coals in cyclone boilers and reducing mercury
- Two systems installed & operating at two power plants
 - Creating Refined Coal for four power plants for ten years (\$6.20 per ton credit escalates annually on ~6.5MM tpy)
 - Contracts in place with third party financial institution to monetize tax credits into revenues for CCS



Refined Coal: Existing Operations

- Refined Coal contributed ~\$10 mm in revenues to ADA-ES in Q3 & Q4'10 (first full half year of operation)
- Expectations for next nine years for first two installations:
 - >\$15 mm in annual revenues to be consolidated by ADA-ES
 - >\$7 mm in pre-tax cash flow and operating income
 - ~\$1.00/share pre-tax operating income after deducting NexGen's share based on 7.5 mm shares



Refined Coal Growth Opportunity

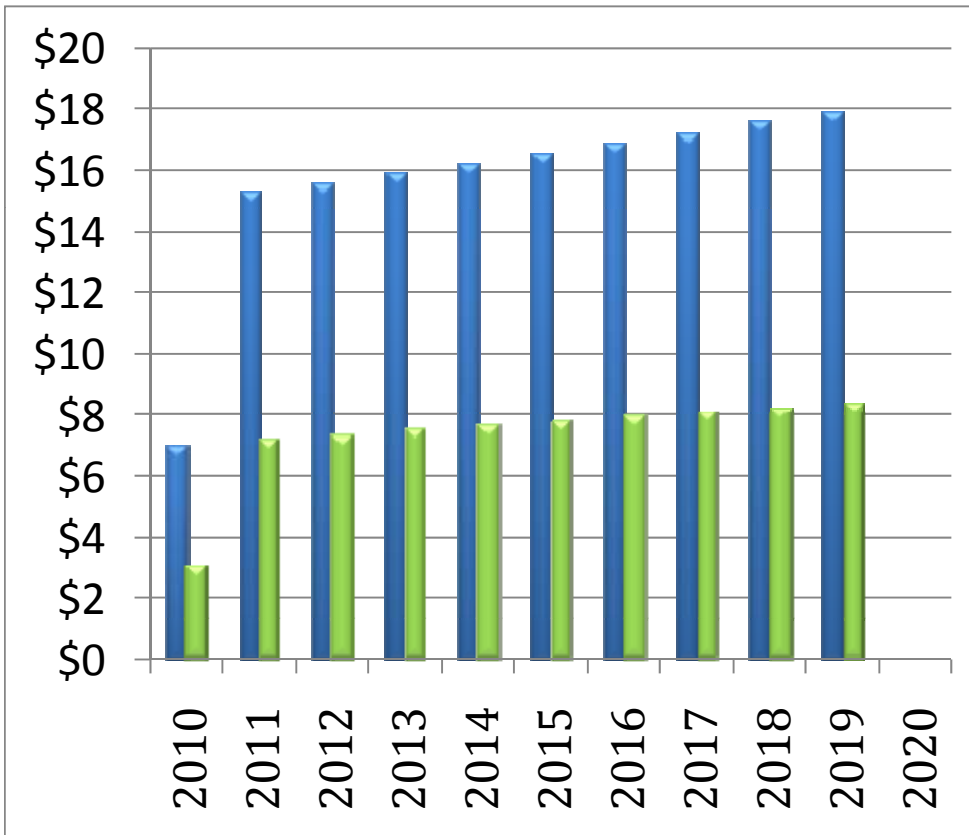
- “Placed-in-service” date extended to 1/1/12; opportunity to triple revenues & operating income
 - Currently have ten prospects; potential for over 30 mm tons per year of Refined Coal @ \$6.20 per ton
 - Current and pending mercury regulations creating increased interest in RC
- Currently fabricating 6 additional RC facilities
 - Each unit capable of producing 1-5 million tons per year
 - Fabrication of first 6 units expected to be completed in May and June
 - Schedule allows for fabrication of a total of 16 systems before year end

Refined Coal



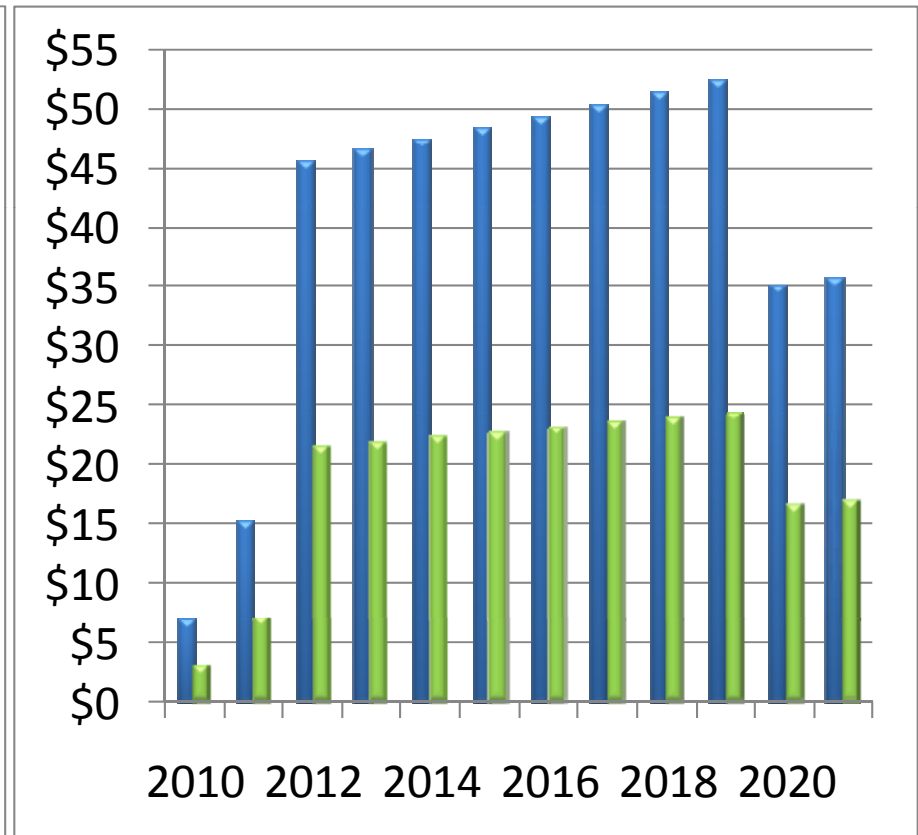
CURRENT PROJECTIONS

(based on 6 million tons)



POTENTIAL OPPORTUNITY

(based on 20 million tons)



\$ in millions



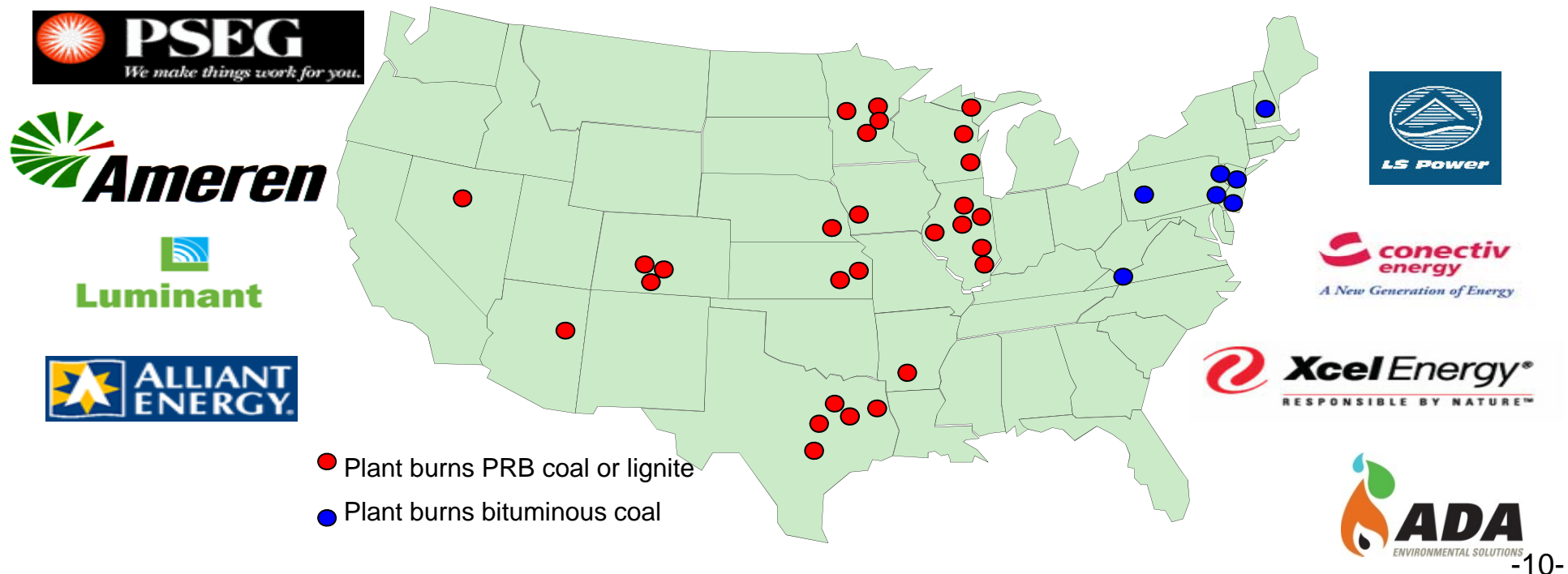
Estimated revenues



Estimated operating income

Emission Control: Equipment Sales

- Installed/installing 47 Activated Carbon Injection (“ACI”) systems at coal-fired power plants
 - Over 30% market share; plants total > 20 GW
 - Remain active in the bid and proposal process



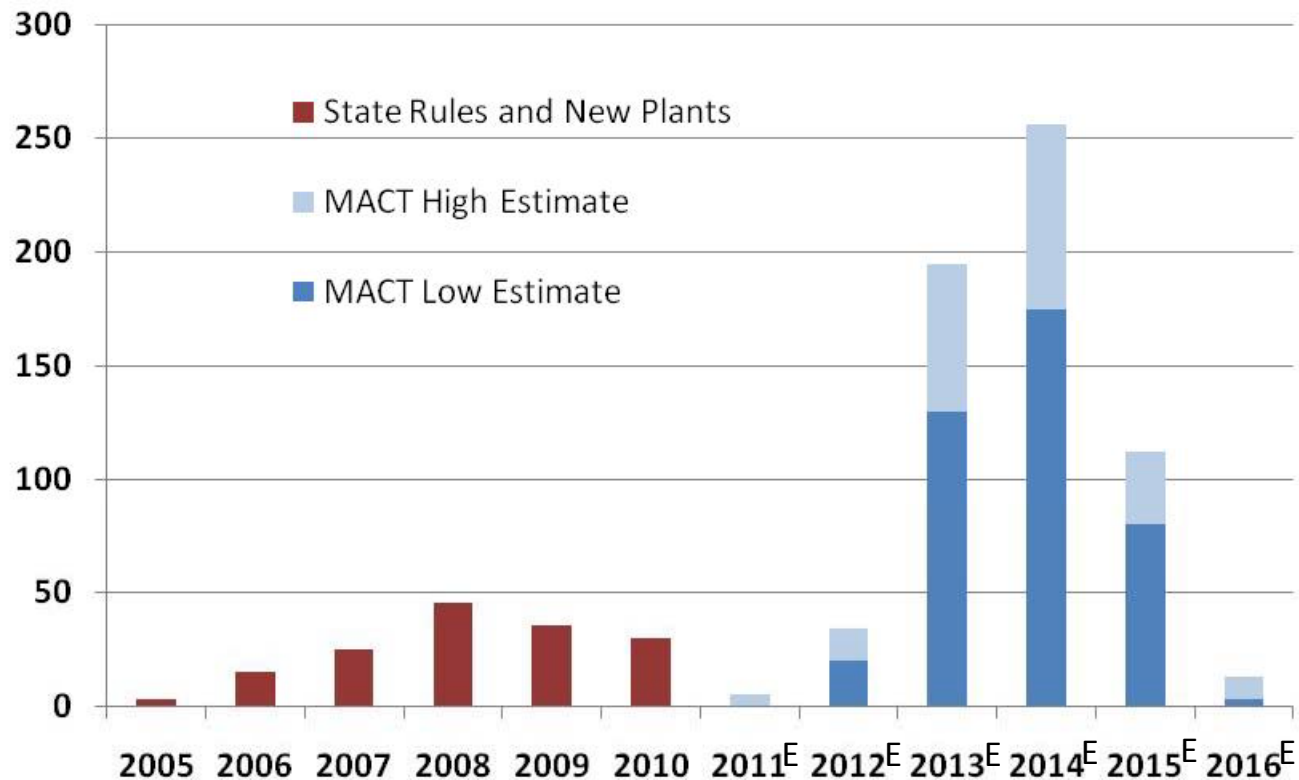
Emission Control: Consumable Sales

- Constructed largest AC plant in the U.S. (Red River, LA)
 - Capacity: 150 mm lbs/yr
- Start-up operations commenced in May 2010
 - Q3'10: delivered AC to customers from 2 of 4 furnaces
 - Q1'11: expect to be able to operate at full capacity
- Site permitted for 2nd production line; seeking permits for 4 more lines in North Dakota



Emission Control: Monumental Growth Expected in ACI Equipment

- Final U.S. EPA Utility MACT due Nov 2011
 - Expect ACI orders from utilities beginning 2011; have three years to become compliant



Emission Control: License to Arch Coal

- Licensed Enhanced Coal to Arch Coal for \$2 mm initial payment in mid-2010
 - Designed to enable Arch's Powder River Basin (PRB) coals to burn with lower emissions of mercury and other metals
 - Royalty agreement – payments of up to \$1.00/ton of Enhanced Coal sales
 - Arch mines >100 mm tons of PRB coal per year
 - Full-scale tests showing promising results

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 Oct. 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

Litigation: Resolved & Pending

- Calgon Carbon
 - December 2010: settlement reached
 - ADA received \$7.2 mm in cash Q4'10; will recognize settlement payment, net of contingent legal fees, as “other income” in the 2010 fiscal year

- Norit
 - November 2010: arbitration hearing completed
 - Briefs filed and final oral arguments heard on February 8, 2011
 - Panel requested 60 days to make ruling

Financial Summary:

Recent Financial Results

- Q3'10 Highlights:
 - Total revenues up 101% from Q3'09 to \$7.5 mm
 - Gross profit grew 386% from Q3'09 to \$5.8 mm, or 77.6% of revenues
 - Net loss of \$5.8 mm, or \$0.78 per share, vs. Q3'09 loss of \$5.3 mm, or \$0.76 per share
 - Net income of \$1.2 mm, or \$0.16 per share, excluding \$8.7 mm in non-routine legal expenses and a \$2.5 mm loss relating to the equity interest in ADA-CS

- Revenue CAGR of 23%, 2003 – 2009

Financial Summary: Outlook

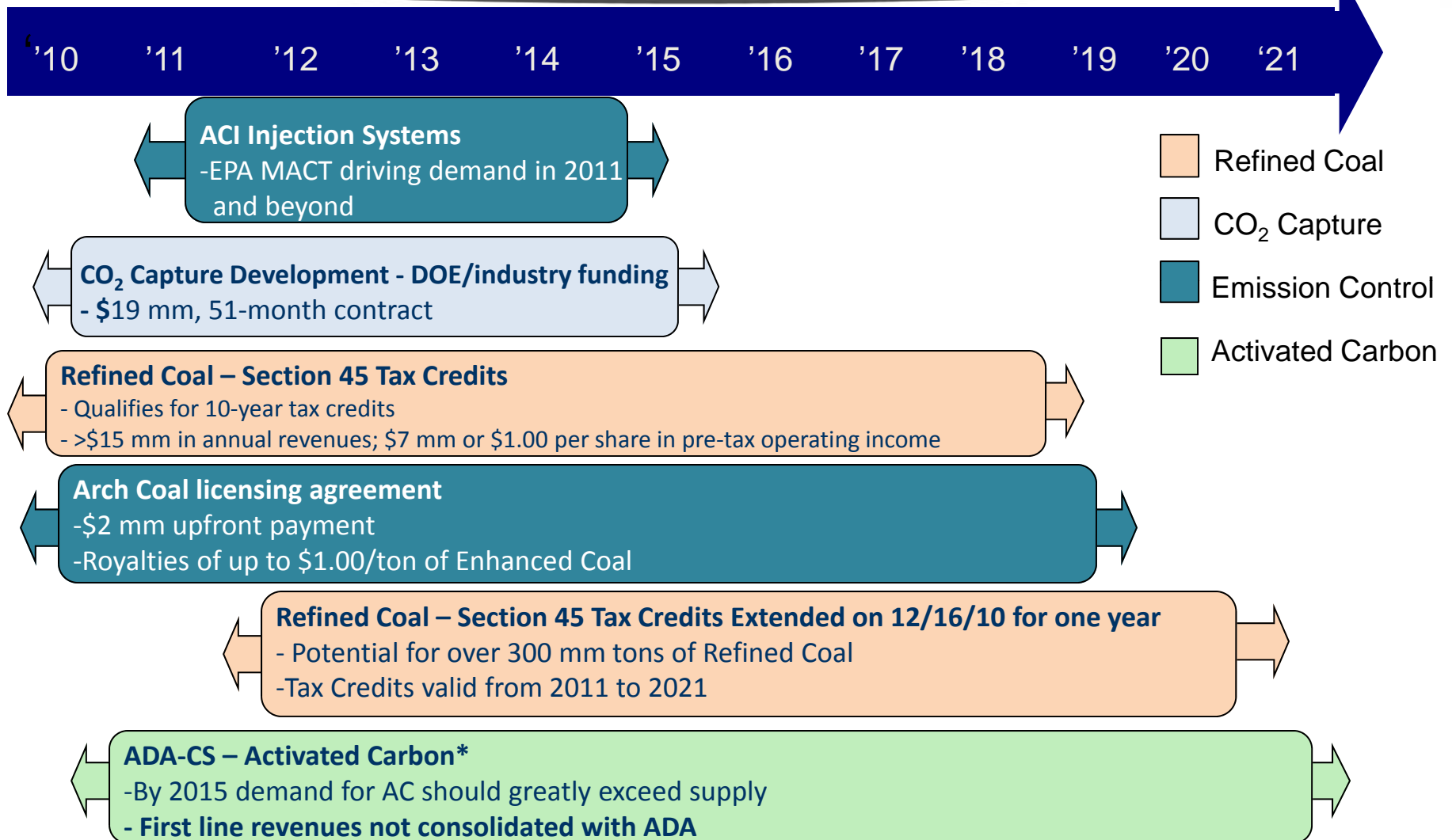
- Legal expenses expected to decline significantly in Q2'11
- Existing Refined Coal facilities expected to generate ~\$1.00 per share in pre-tax cash flow and operating income after deduction of NexGen's share through 2019
- Possibility to more than double that amount with additional Refined Coal facilities and extension of tax credits
- Emission Control:
 - Pending Federal MACT rules should substantially expand ADA's existing market for ACI systems – expected timeframe 2011
 - Arch agreement expected to generate payments of up to \$1.00/ton of Enhanced Coal beginning in late 2011

Financial Summary:

Balance Sheet Highlights & Other Data

- Balance sheet highlights (at 9/30/10):
 - Working capital, excluding deferred revenue, of \$8.9 mm
 - Shareholders' equity of \$14.1 mm
 - Cash & equivalents of \$3.0 mm
 - 7.5 mm diluted shares outstanding
- \$5.4 million of net proceeds received in 12/10 from settlement of lawsuit with Calgon
- As of 02/28/11:
 - Market cap: \$110.4 mm
 - 50%+ held by institutions
 - ~11% held by insiders and employees
 - Analyst coverage: Avondale Partners, Canaccord Genuity, JMP Securities, Johnson Rice, Lazard Capital Markets, Pritchard Capital Partners, Wedbush Securities

Expected Timeline of Revenue Recognition by Segment





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A Leader in Clean Coal Technology

