UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): April 7, 2008 (April 7, 2008)

Arch Coal, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 1-13105 (Commission File Number) 43-0921172 (I.R.S. Employer Identification No.)

CityPlace One One CityPlace Drive, Suite 300 St. Louis, Missouri 63141 (Address, including zip code, of principal executive offices)

Registrant's telephone number, including area code: (314) 994-2700

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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Item 7.01 Regulation FD Disclosure.

On April 7, 2008, Steven F. Leer, Chairman and Chief Executive Officer of Arch Coal, Inc., will deliver a presentation at the Howard Weil 36th Annual Energy Conference that will include written communication comprised of slides. The slides from the presentation are attached hereto as Exhibit 99.1 and are hereby incorporated by reference.

A copy of the slides will be available at <u>http://investor.archcoal.com/events.cfm</u> for 30 days.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibit is attached hereto and furnished herewith.

Exhibit No.	Description
99.1	Slides from the presentation at the Howard Weil 36th Annual Energy Conference.

1

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: April 7, 2008

Arch Coal, Inc.

By: /s/ Robert G. Jones Robert G. Jones Vice President – Law, General Counsel and Secretary

Exhibit No.	Description
99.1	Slides from the presentation at the Howard Weil 36th Annual Energy Conference.

Exhibit Index







Howard Weil 36th Annual Energy Conference

Steve Leer, Chairman and CEO Arch Coal, Inc.

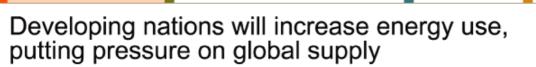
New Orleans April 7, 2008

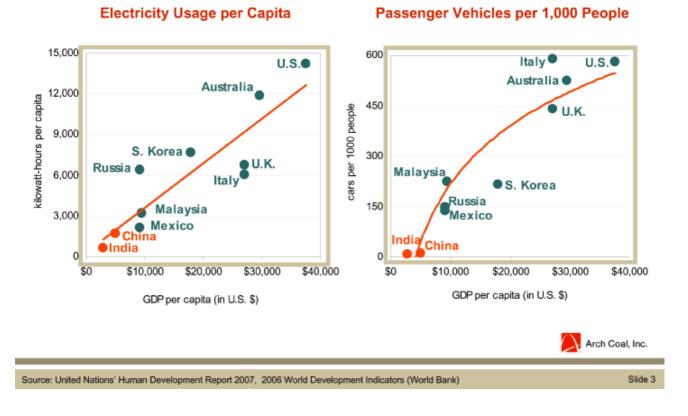
Forward-Looking Information

This presentation contains "forward-looking statements" – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," or "will." Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, particular uncertainties arise from changes in the demand for our coal by the domestic electric generation industry; from legislation and regulations relating to the Clean Air Act and other environmental initiatives; from operational, geological, permit, labor and weather-related factors; from fluctuations in the amount of cash we generate from operations; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. For a description of some of the risks and uncertainties that may affect our future results, you should see the risk factors described from time to time in the reports we file with the Securities and Exchange Commission.

This presentation includes certain non-GAAP financial measures, including Adjusted EBITDA. These non-GAAP financial measures are not measures of financial performance in accordance with generally accepted accounting principles and may exclude items that are significant in understanding and assessing our financial results. Therefore, these measures should not be considered in isolation or as an alternative to net income from operations, cash flows from operations, earnings per fully-diluted share or other measures of profitability, liquidity or performance under generally accepted accounting principles. You should be aware that our presentation of these measures may not be comparable to similarly-titled measures used by other companies. A reconciliation of these financial measures to the most comparable measures presented in accordance with generally accepted accounting principles has been included at the end of this presentation.



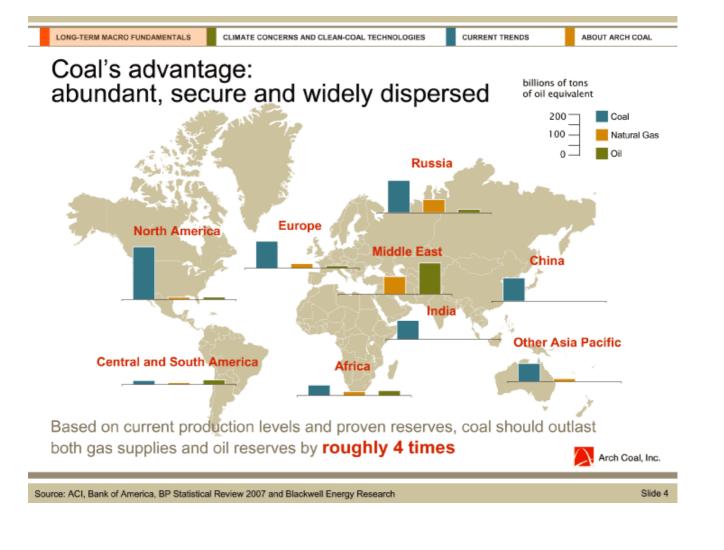


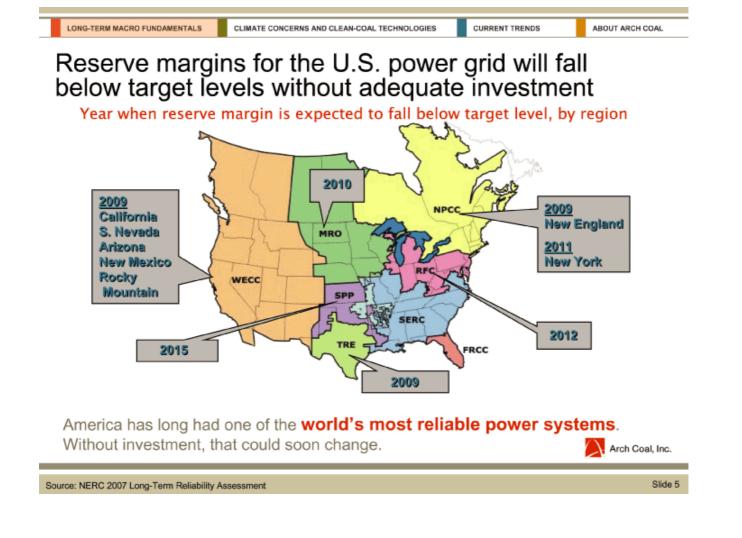


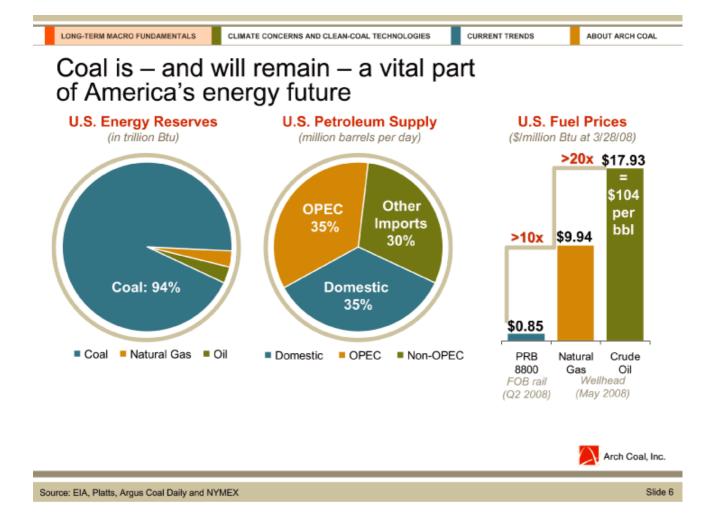
LONG-TERM MACRO FUNDAMENTALS

CURRENT TRENDS

ABOUT ARCH COAL







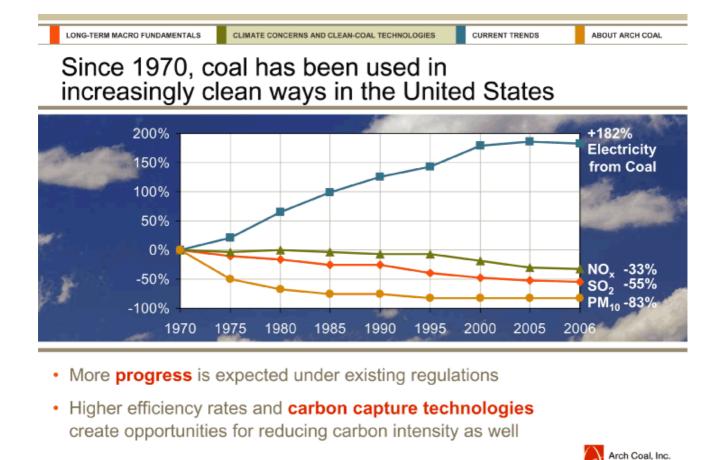
CURRENT TRENDS

ABOUT ARCH COAL

Over the long term, clean-coal technologies can broaden market demand for coal

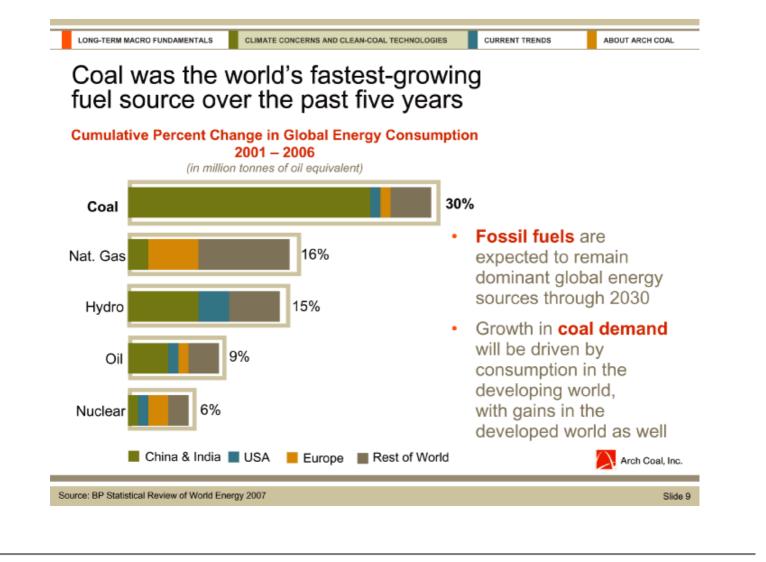


Source: ACI



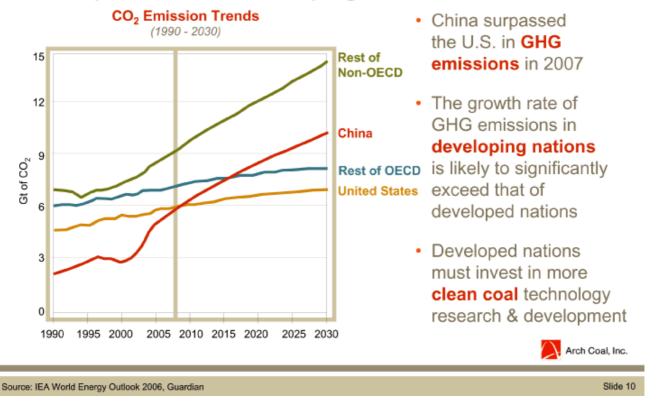
Source: NMA, EPA

NOx (Nitrogen Oxide), SO2 (Sulfur Dioxide), PM10 (Particulate Matter)



ABOUT ARCH COAL

Developed nations must adopt climate solutions and export them to developing nations



CURRENT TRENDS ABOUT ARCH COAL

Many public sources recognize that coal will remain part of any energy solution



- "...the priority objective with respect to coal should be the successful demonstration of a large-scale integrated CCS system - capture, transportation and storage."
- "Our second and equally important premise is that coal will continue to play a large and indispensable role in a greenhouse gas constrained world."

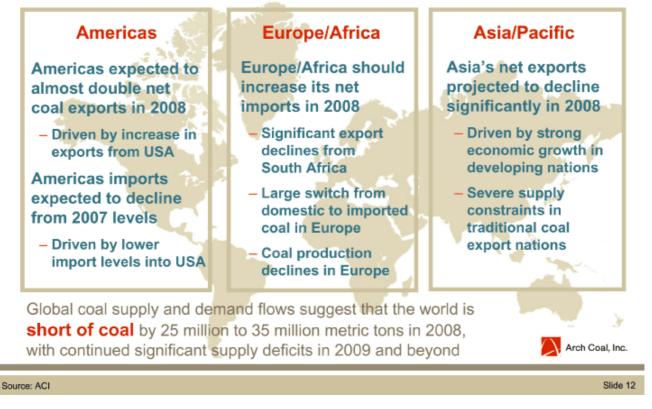
- "Coal will continue to be important in the energy mix around the world, including fastgrowing economies."
- "Extensive carbon capture and storage will be necessary to allow the continued use of fossil fuels without damage to the atmosphere..."

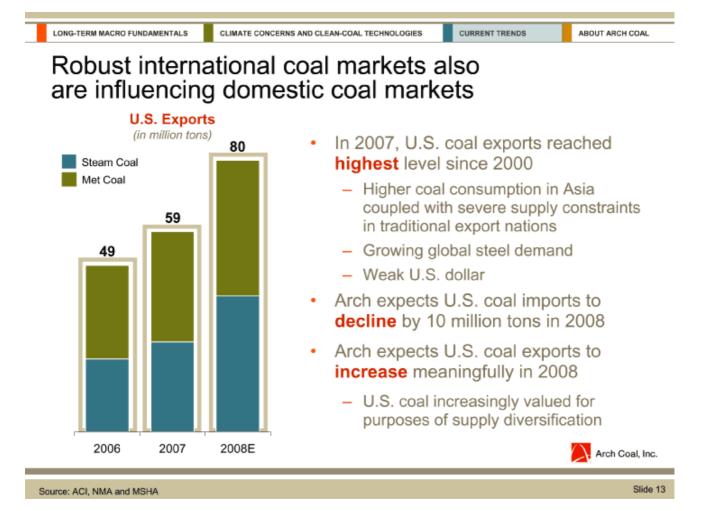
Source: U.S. Massachusetts Institute of Technology (MIT) Study, U.K. Stern Review

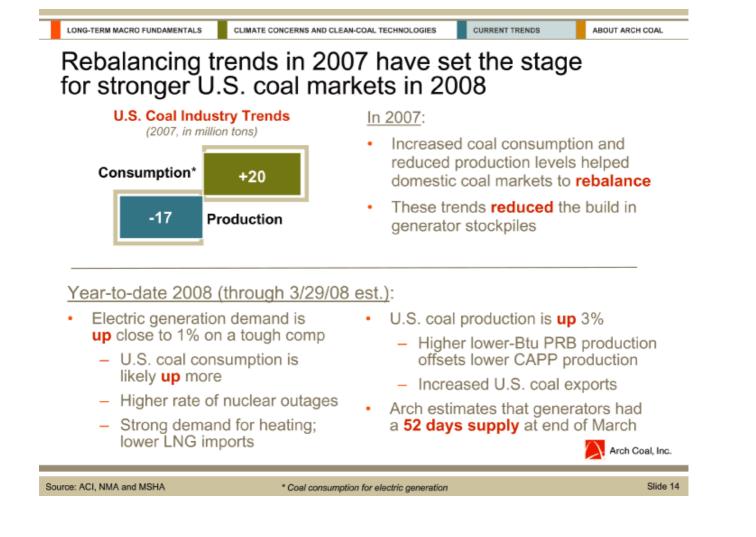


CLIMATE CONCERNS AND CLEAN-COAL TECHNOLOGIES

Explosive growth in international coal markets underscores the shortage of energy around the globe







Largest coal plant build-out since 1980 will meaningfully expand coal demand Anticipated Supply Region for Build-out of close to 16 GW **Coal Plants Under Construction** translates into 54 million tons of (in millions of tons) new annual coal demand over next five years, with substantial 21 increases in 2009 and 2010

> Arch's reserve base strategically positioned to service more than two-thirds of these new plants

CURRENT TRENDS

ABOUT ARCH COAL

Arch Coal, Inc.

Slide 15

More than 9 GW, representing an additional incremental 33 million tons, is currently in advanced permitting stages

Source: Platts and ACI

PRB

14

7

0

2008

2009

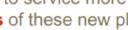
CAPP Illinois

2010

NAPP

2011+

Other



LONG-TERM MACRO FUNDAMENTALS CLIMATE CONCERNS AND CLEAN-COAL TECHNOLOGIES

Arch Coal, Inc.

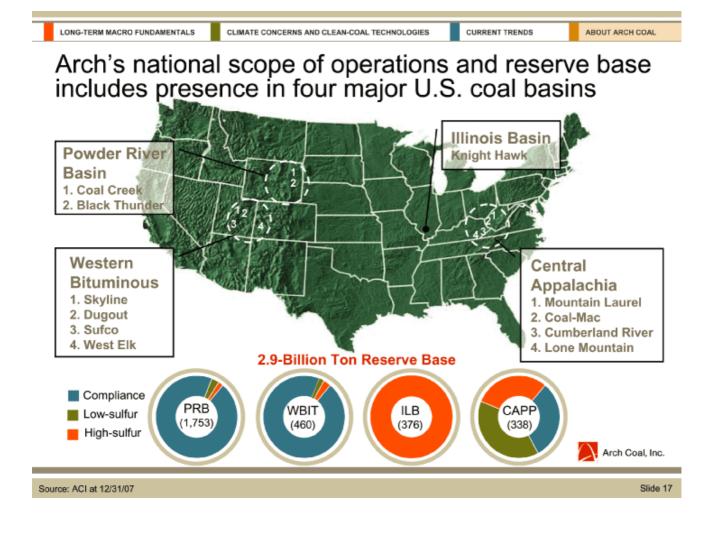
Slide 16

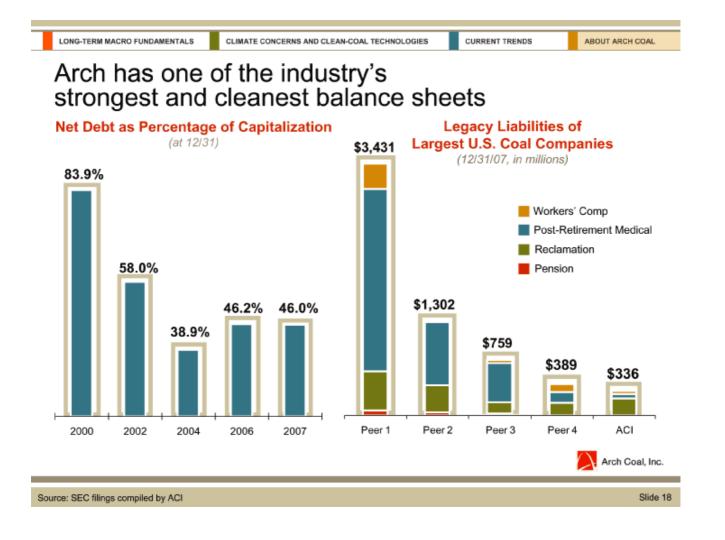
Arch Coal is positioned for the future



- One of the largest coal producers in the U.S.
- Core business is **providing U.S. power generators** with cleaner-burning, low-sulfur coal for electric generation
 - Supplies roughly 12% of U.S. coal needs
 - Provides source fuel for roughly 6% of U.S. electricity
- Talented workforce operates large, modern mines
- Industry leader in mine safety, productivity and reclamation

Source: ACI





LONG-TERM MACRO FUNDAMENTALS

Arch's future success hinges on three key pillars of performance



Operating the world's safest coal mines

- Awarded MSHA's Sentinels of Safety honor for operating the nation's safest underground coal mines in 2006 and 2007
- Ranked first among coal industry peers for safety performance last year
- 2007 was second-best year on record for total incident rate



Acting as responsible citizens and good environmental stewards

- 2007 was best year for compliance in Arch history and best among peers
- Earned three National Good Neighbor Awards in past four years
- U.S. Department of Interior Award in 2007 for best surface reclamation



Achieving superior financial results

- Ranked by Forbes as one of America's most trustworthy companies
- Operated three of top eight most productive longwall mines last year
- Surface mines produced 170% more tons per employee shift than industry average in 2007

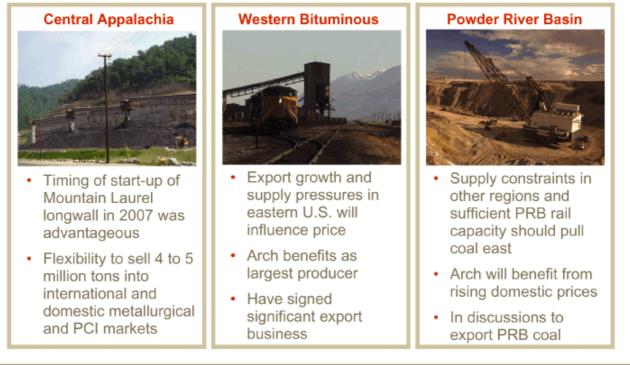
Arch Coal, Inc.

Slide 19

Source: ACI and Public Sources

ABOUT ARCH COAL

Arch's mines are strategically positioned to capitalize on dynamic trends in coal markets

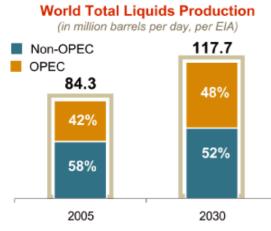


Source: ACI



Slide 22

Arch is advancing clean-coal technology development via a proposed coal-to-liquids plant in Wyoming



- World oil consumption needs are growing, and increasingly will be supplied by OPEC
- CTL can have a positive impact on the U.S. economy, security and environment

Mine-Mouth CTL Plant

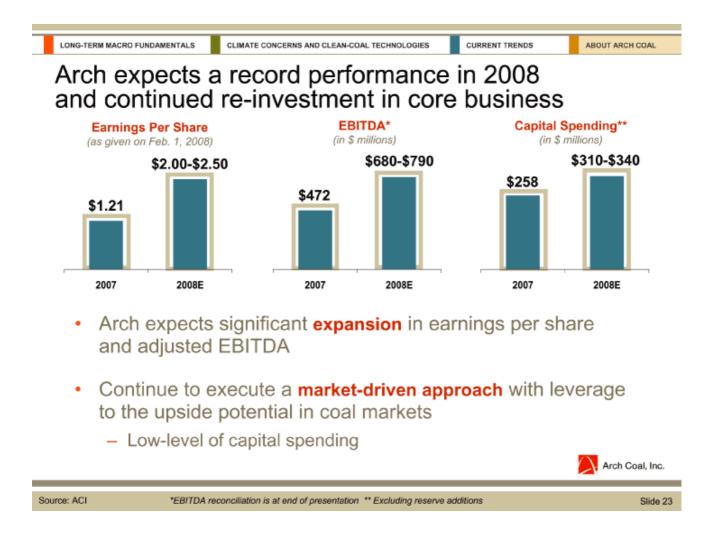


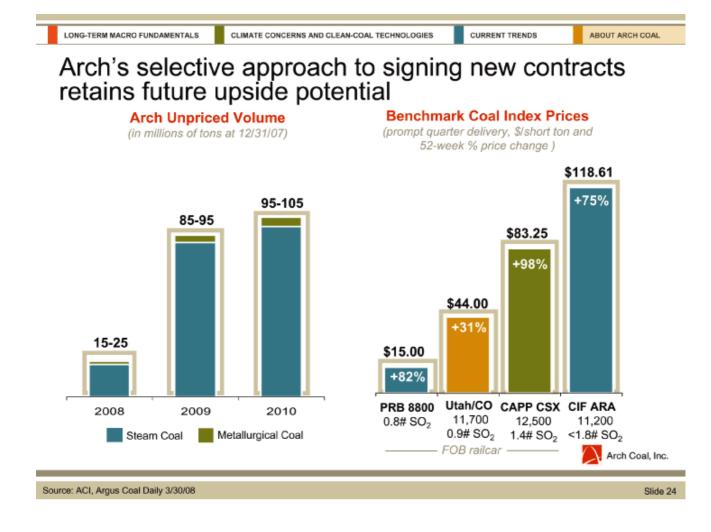
Transportation Fuel | Chemical Feedstock



- Arch owns an equity interest in DKRW Advanced Fuels
- Proposed plant would capture CO₂ to enhance recovery in domestic oil fields
 Arch Coal, Inc.

Source: EIA and ACI





CLIMATE CONCERNS AND CLEAN-COAL TECHNOLOGIES

CURRENT TRENDS

Arch continuously evaluates all avenues for value creation

Organic Growth

Invest in core businesses to enhance profit growth and return on capital, evaluate opportunities to further upgrade and expand reserve base

Strategic Growth

Consider acquisitions or other investments that strategically fit and create value

Shareholder Returns

Market Expansion

Consider investments to expand market for coal (and improve coal's value proposition) through Btu-conversion and other advanced coal technologies

Capital Structure Enhancement

Maintain strong balance sheet, and consider other vehicles for value creation, such as share repurchases or dividend increases, when advantageous



Slide 25

Source: ACI

EBITDA Reconciliation Chart

Included in the accompanying presentation, we have presented certain non-GAAP measures as defined by Regulation G. The following reconciles these items to net income as reported under GAAP.

Adjusted EBITDA is defined as net income before the effect of net interest expense; income taxes; our depreciation, depletion and amortization; expenses resulting from early extinguishment of debt; and other non-operating expenses. Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded to calculate Adjusted EBITDA are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDA should not be considered in isolation nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. We believe that Adjusted EBITDA presents a useful measure of our ability to service and incur debt based on ongoing operations. Furthermore, analogous measures are used by industry analysts to evaluate operating performance. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The table below shows how we calculate Adjusted EBITDA.

Arch Coal, Inc. and Subsidiaries

Arch Coal, mc. and Subsidiaries						
	Year Ended	Year Ended				
	12/31/07	December 31, 2008		December 31, 2008		
		Low	High			
(in \$000s)		(Unaudited)				
Net income	\$ 174,929	\$290,000	\$ 362,000			
Income tax expense	(19,850)	25,000	58,000			
Interest expense, net	72,265	85,000	80,000			
Depreciation, depletion and amortization	242,062	280,000	290,000			
Expenses from early debt extinguishment and other non-operating	2,273	-	-			
Adjusted EBITDA	\$ 471,679	\$ 680,000	\$ 790,000			
			Arch Coal, Inc.			

Source: ACI