
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): September 4, 2008 (September 4, 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:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - 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 September 4, 2008, Steven F. Leer, Chairman and Chief Executive Officer of Arch Coal, Inc., will deliver a presentation at the Lehman Brothers CEO Energy/Power 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 <http://investor.archcoal.com/events.cfm> 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 Lehman Brothers CEO Energy/Power Conference.

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.

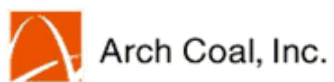
Dated: September 4, 2008

Arch Coal, Inc.

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

Exhibit Index

Exhibit No.	Description
99.1	Slides from the presentation at the Lehman Brothers CEO Energy/Power Conference.



Lehman Brothers CEO Energy/Power Conference

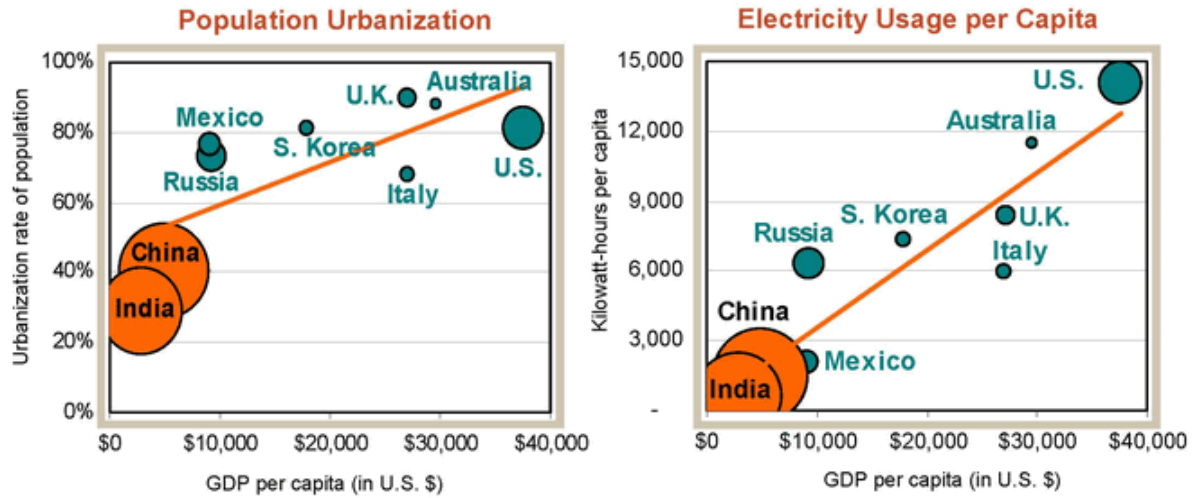
Steve Leer, Chairman and CEO
Arch Coal, Inc.

New York City
September 4, 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.

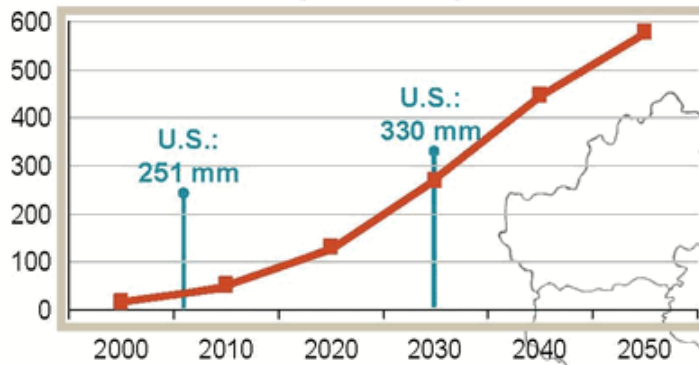
Asia's industrial revolution is testing global energy supply infrastructure



Note: bubble size reflects size of population

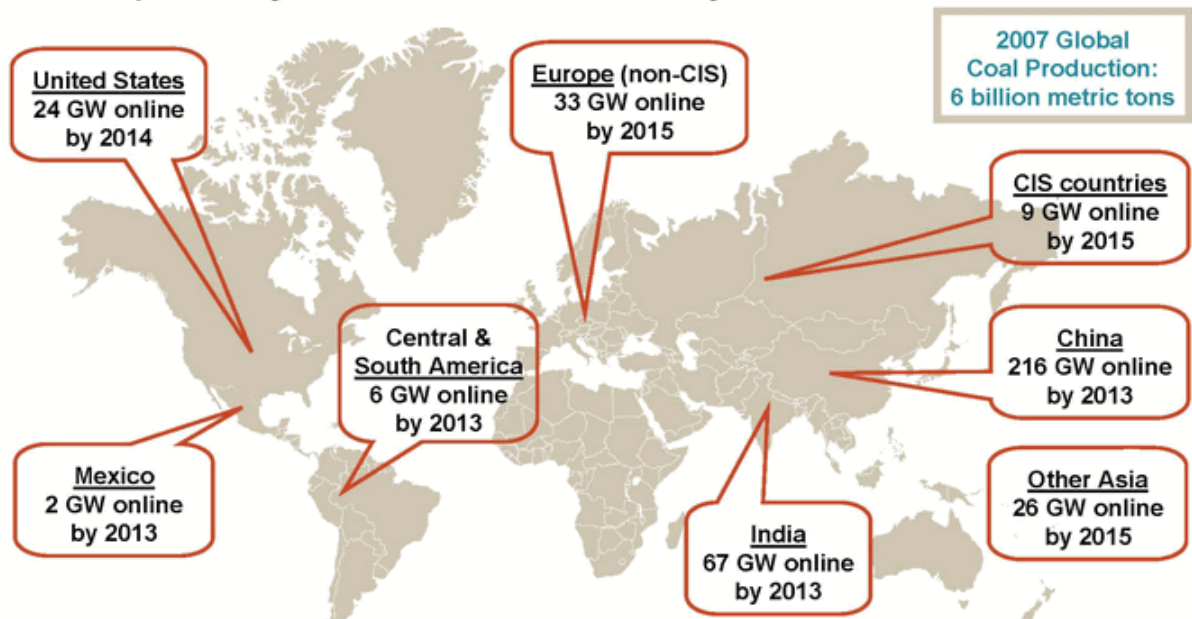
China's vehicle fleet is projected to surpass that of the United States post 2030

Number of Highway Vehicles in China
(in million units)



- **Chinese vehicle fleet** projected to grow by 217 million vehicles between 2010 and 2030
- China is projected to add another 309 million vehicles from 2030 to 2050, **surpassing the U.S.**
- **Significant strain** on energy transport infrastructure

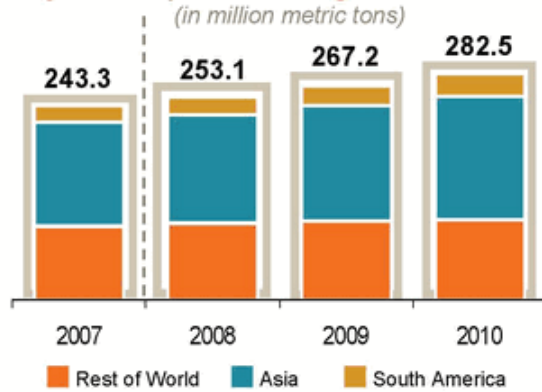
Around the globe, countries are embracing coal as a primary source for electricity



"The demand for coal will increase sharply as **coal-fired plant constructions** are being carried out at a break neck pace. By 2012, the world would need an estimated additional 1.1 billion short tons of new coal supply."

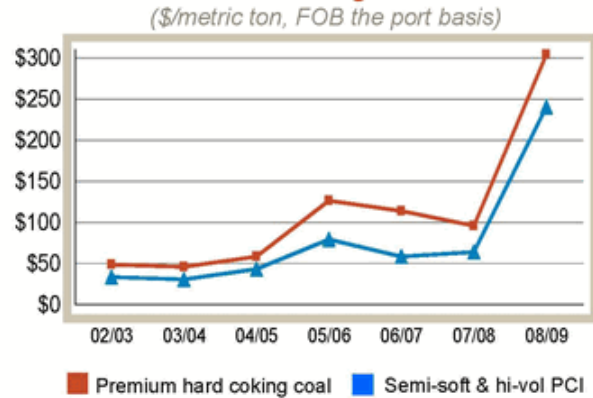
Growing worldwide steel production and blast furnace capacity additions are stoking met coal demand

Projected Import Metallurgical Coal Demand



- Global import **met coal** demand expected to grow by ~40 million tons over next 3 years
- More than 75 percent of the expected growth is being driven by increased consumption in **Asia** and **South America**

Benchmark Pricing for Met Coal



- **Met coal pricing** has risen sharply since 2003; expect continued market tightness
- Arch is **poised to capitalize** on strong met and PCI coal trends with its Mountain Laurel, Pardee and Lone Mountain mines

Global coal supply flows are shifting due to growing demand and severe supply constraints

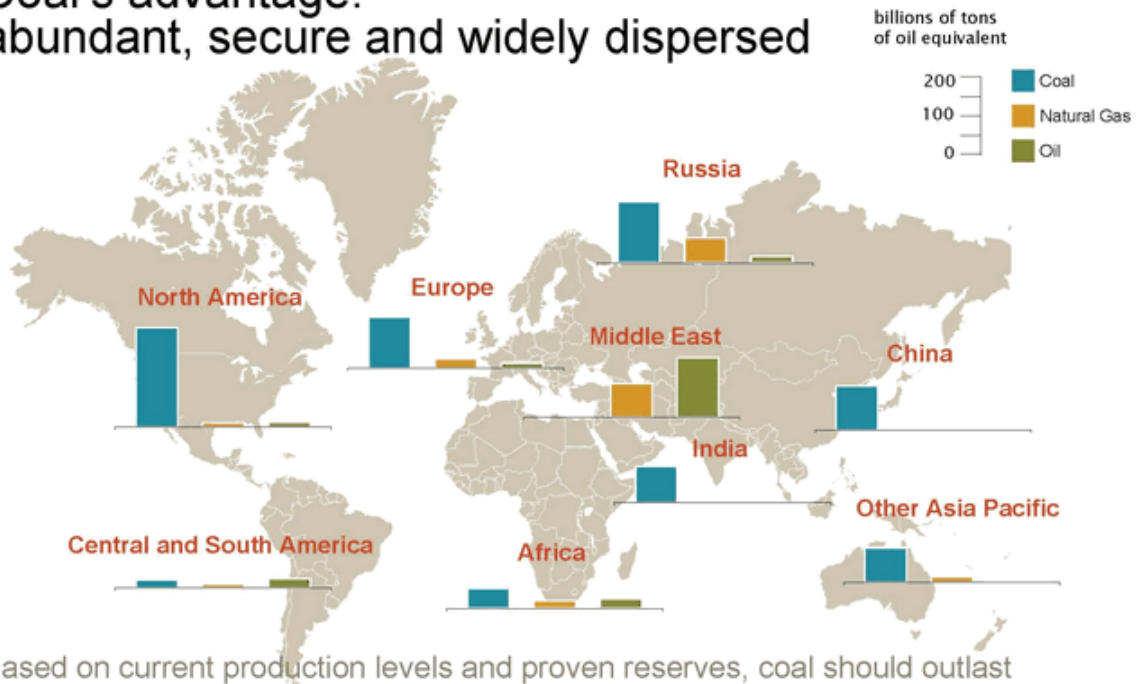
Key Trends in Atlantic Basin Coal Markets

- **South America:** port infrastructure constraints; political instability; resource nationalism; growing regional coal burn
- **USA:** swing supplier to Atlantic basin market; available coal export capacity; imports into country declining
- **Europe:** coal production declining; growing coal burn in eastern Europe; traditional import supply avenues waning
- **Russia:** production challenges; growing domestic coal consumption; exports increasingly shifting to Asia-Pacific market
- **South Africa:** domestic power shortage; reserve degradation; exports increasingly shifting to Asia-Pacific market

Key Trends in Asia-Pacific Coal Markets

- **Australia:** severe port and rail bottlenecks may mask underlying labor and mine challenges; expanded capacity still may undershoot growing Asian demand
- **Indonesia:** increasing domestic demand; export capacity dependent on congested river system
- **China:** substantial growth in domestic demand will likely push country to a net importer status as early as 2008
- **Vietnam:** growing domestic demand expected to reduce export supply
- **India:** imported coal needs projected to rise meaningfully; will pull available supply from Atlantic Basin markets

Coal's advantage: abundant, secure and widely dispersed



Based on current production levels and proven reserves, coal should outlast both gas supplies and oil reserves by **roughly 4 times**



In U.S. coal markets, Arch expects above-average demand growth over the next three years

<i>(in million tons)</i>	2008	2009	2010
Growth at Existing Coal Plants	-	+10	+10
New Coal Plant Demand ^{1/}	4	22	20
Increase in Gross Exports	24	10	10
Decline in Imports	2	-	-
Incremental Demand Growth	+30	+42	+40
Cumulative		+72	+112

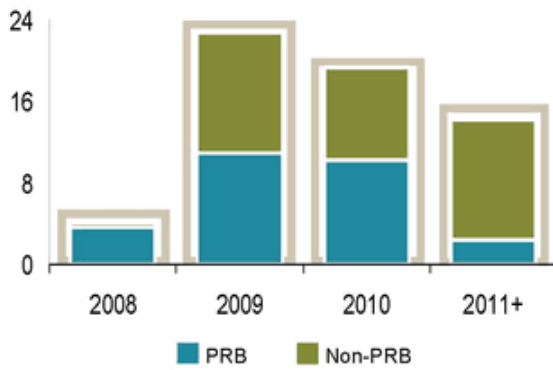
^{1/} Net of coal plant retirements.

- U.S. coal demand to grow by more than **100 million tons** by 2010
 - **Average utilization increases** of ~1% annually over the past 10 years (2008 projected to be weaker economically)
 - New **coal plant build-out** will expand coal consumption meaningfully
 - U.S. is expected to become a more **significant net exporter** given shortage of coal supply worldwide and available port capacity



Largest coal plant build-out since 1980 will meaningfully expand coal demand

**Anticipated Supply Region for
Coal Plants Under Construction**
(in millions of tons)



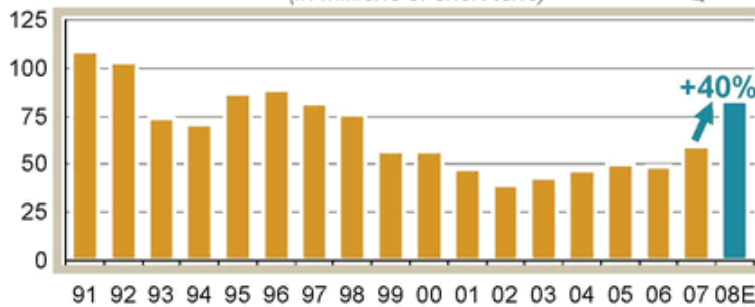
- Build-out of 17.5 GW equates to **62 million tons** of new annual coal demand over next four years
- **Powder River Basin** likely will service at least half of these plants
- More than 7 GW – another **20 million tons** – in advanced permitting stages

Available U.S. port capacity and strong international demand will expand coal exports

- Available eastern export port capacity at Baltimore and Hampton Roads
- Existing port capacity at southern ports of Mobile, New Orleans, Charleston and Texas
- Limited port capacity on West Coast

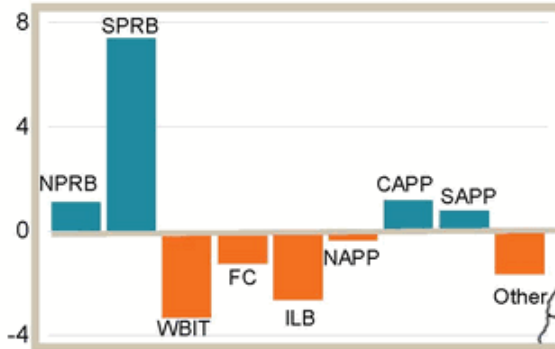


Annual U.S. Gross Exports
(in millions of short tons)

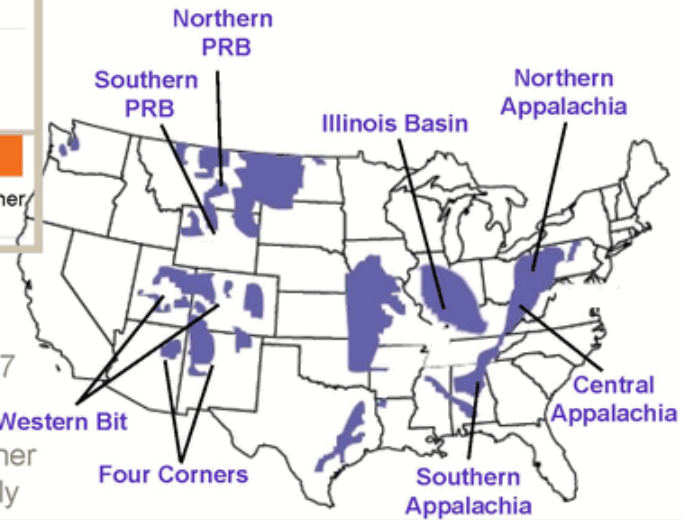


U.S. coal supply growth is not keeping pace with projected U.S. coal demand in 2008

Increase in 1H08 U.S. Coal Production (versus 1H07, in million tons, per MSHA)



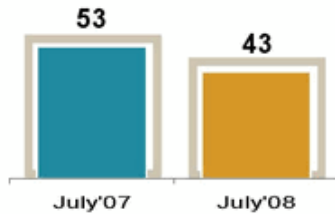
- First half 2008 total U.S. coal production increased just **1.2 million tons** vs. first half of 2007
- Some Appalachian steam coal is **crossing over** to met markets, further reducing available steam coal supply



Total U.S. coal stockpile levels appear adequate – with eastern days-supply levels indicating tightness

Eastern Inventory Levels

(in days of burn)

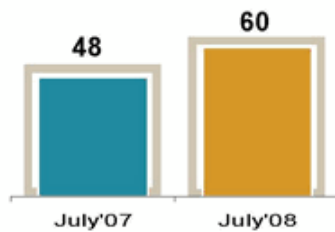


There is genuinely a **tightness** in the market driven by international fundamentals, global demands.
- AEP (5/08)

We have blended in an increasing amount of Powder River Basin coal, and we – while rebalancing the portfolio – have remained within our dispatch price targets by **blending in cheaper coals**.
- AEP (5/08)

Western Inventory Levels

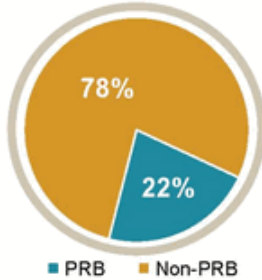
(in days of burn)



We did have the risk of **shortages** a year and a half ago ... our piles got pretty dramatically low ... **Coal conservation** in our instance affected our ability to sell some [power] into the wholesale market. With this, it showed that we need to have **more inventory** and we need to keep that stockpile. So, we certainly have **increased our [targets] ...**
- Great Plains Energy (5/08)

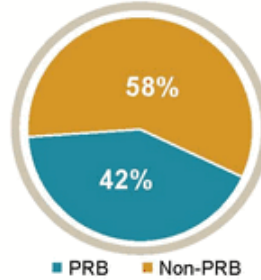
In past cycles, PRB coal has gained market share in border states just east of the Mississippi River

**Border States
East of Mississippi River**
Burn by Coal Type circa 1990



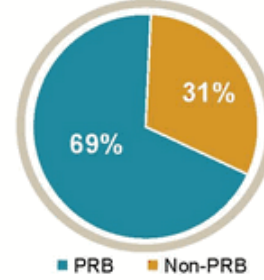
- **Eastern border state** power plants in Wisconsin, Illinois, Tennessee and Mississippi historically burned a small mix of PRB coal

**Border States
East of Mississippi River**
Burn by Coal Type circa 1995



- By 1995, power plants in these four states increased their mix of **PRB coal** from 22 percent to 42 percent in just five years

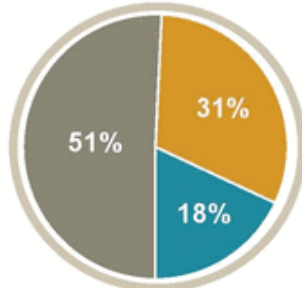
**Border States
East of Mississippi River**
Burn by Coal Type circa 2007



- Current 69 percent mix of PRB coal has been achieved with relatively **modest capital investment**

We foresee increased PRB market expansion opportunities further east of the Mississippi River

**Non-Border States
East of Mississippi River**
Burn by Coal Type circa 2007



■ PRB
■ PRB switching opportunity
■ Non-PRB

Based on historical switching in the border states and the lower heat content of PRB coal, the **theoretical PRB switching opportunity** in the East exceeds 300 million tons

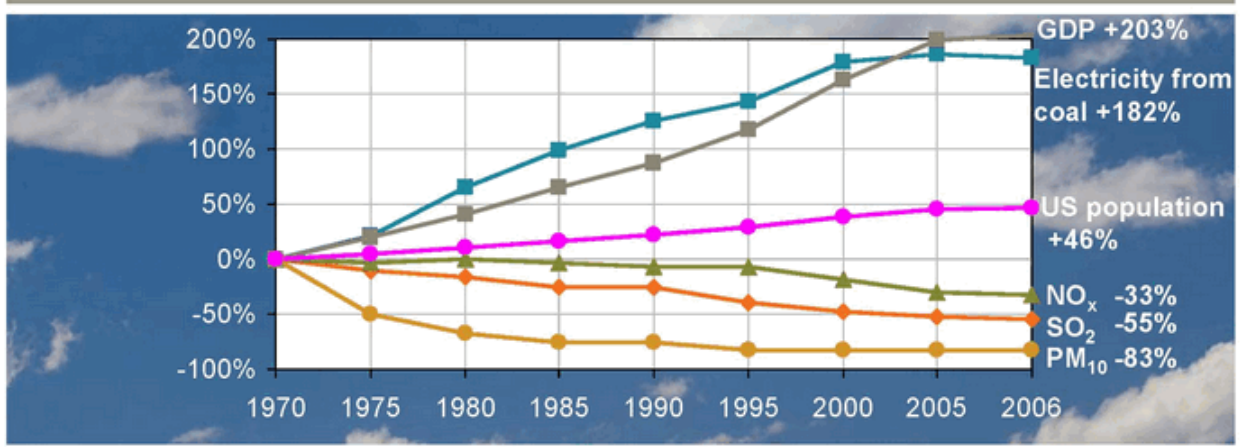


Eastern power plants in non-border states are generally **comparable in design** to plants in the border states

Non-border state plants should be able to **increase their PRB coal use** greatly with minimal investment

Such development is underway. In recent weeks, **Arch has signed agreements** with non-traditional PRB customers to test – as well as increase burn of – PRB coal.

Since 1970, coal has been used in increasingly clean ways in the United States



- Higher efficiency rates and **carbon capture technologies** create opportunities for reducing carbon intensity as well

There is support for coal's essential role in America's energy future



"...we'll need to invest more in the clean technology that will allow us to burn more coal, our country's most abundant fossil fuel."

Senator Barack Obama (D-IL)

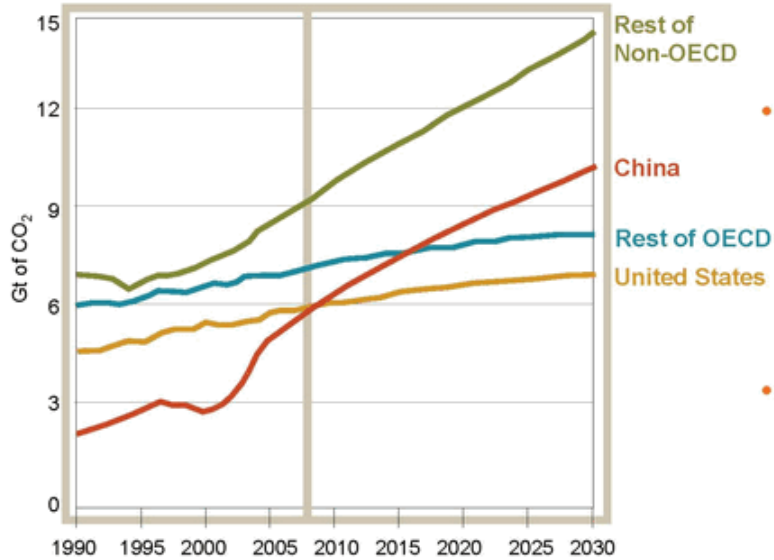
"We are sitting on the world's largest supply of energy in our coal reserves and that has to be one of the fundamental components of energy independence."

Senator John McCain (R-AZ)



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

CO₂ Emission Trends
(1990 - 2030)



- China surpassed the U.S. in **GHG emissions** in 2007
- The growth rate of GHG emissions in **developing nations** is likely to significantly exceed that of developed nations
- Developed nations must invest in more **clean coal** technology research & development

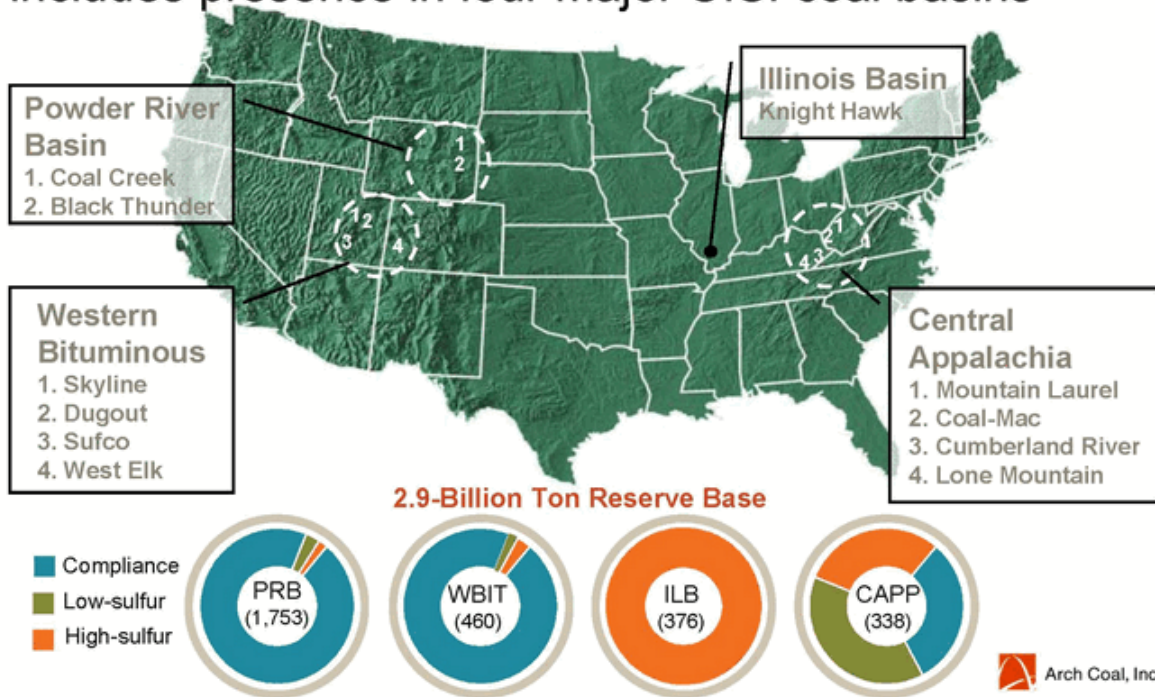
Arch Coal is well-positioned for the future



- One of the **largest** coal producers in the United States
- We supply roughly **12 percent** of the U.S. coal supply
 - Provide cleaner-burning, low-sulfur coal to fuel 6 percent of the nation's electricity
 - Ship coal to domestic and international steel manufacturers as well as international power producers
- Our talented **workforce** operates large, modern and efficient mines
- Industry **leader** in mine safety, productivity and reclamation



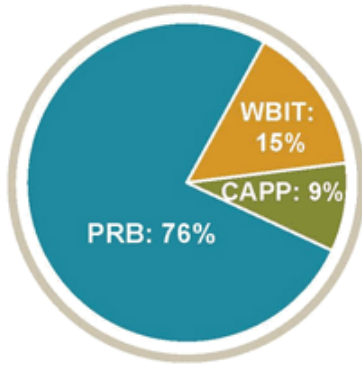
Arch's national scope of operations and reserve base includes presence in four major U.S. coal basins



Arch's mine portfolio underscores value of diversity

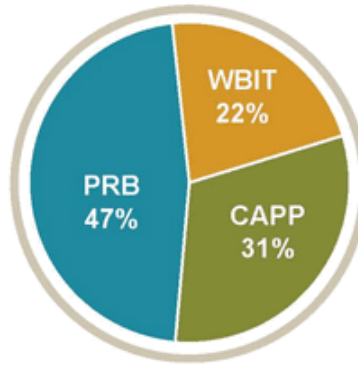
2007 ACI Coal Production

(percent of total tons by region)



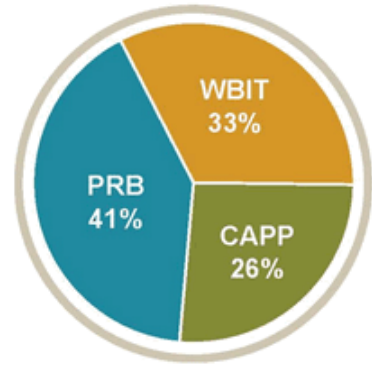
2007 ACI Revenue

(percent of total revenue by region)

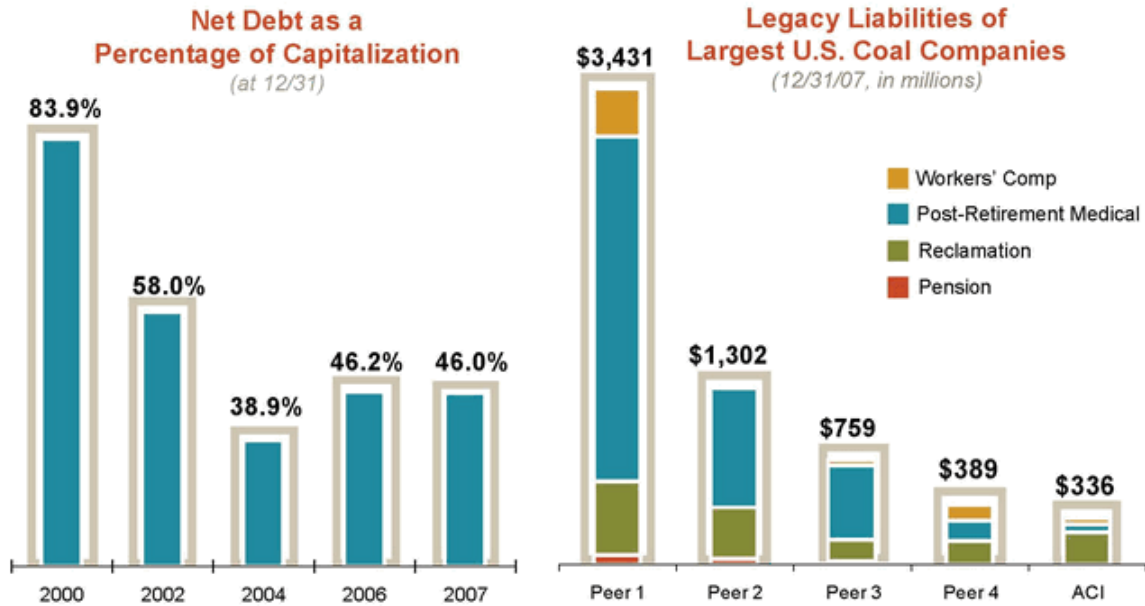


2007 ACI Income

(percent of segment income by region)



Arch has one of the industry's strongest and cleanest balance sheets



Arch is continuing to enhance its reputation as a responsible energy company



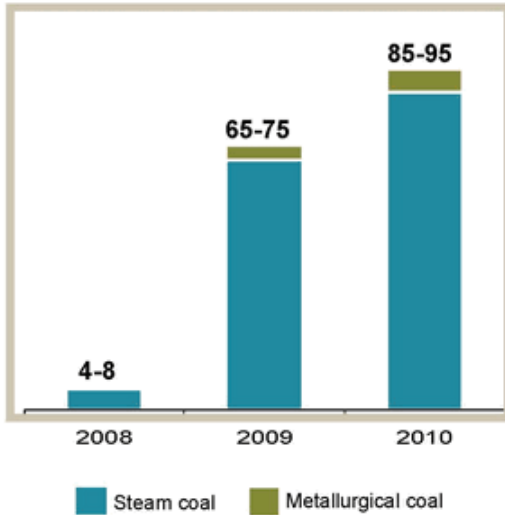
- Operating the world's **safest** coal mines
 - Awarded MSHA's Sentinels of Safety honor for operating the nation's safest underground coal mines in 2006 and 2007
 - Ranked first among coal industry peers for safety performance last year
- Acting as **responsible** citizens and good **environmental stewards**
 - Inaugural 2007 social responsibility report elevates awareness of Arch's environmental programs
 - Earned 3 National Good Neighbor Awards in 4 years
- Achieving superior **financial performance**
 - *Forbes* recognized Arch as one of the 100 most trustworthy U.S. companies of 2008
 - Expect 2008 to be a record earnings year for Arch



Arch's selective approach to signing new contracts retains future upside potential

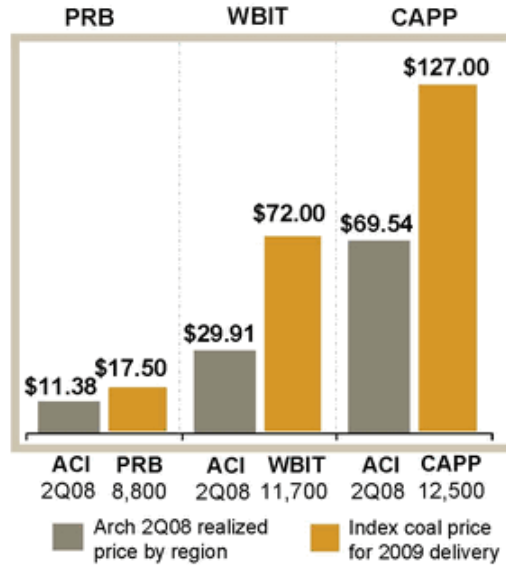
Arch Unpriced Volume

(in millions of tons at 6/30/08)



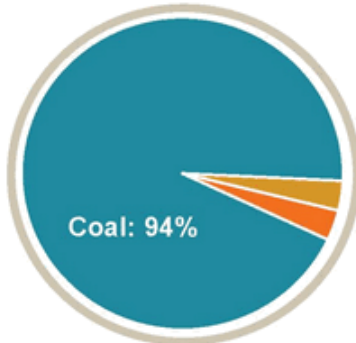
Steam Coal Price Comparison

(\$/short ton, as of 8/29/08)



Over the long-term, Arch's coal-to-liquids vision can help America address energy security concerns

U.S. Energy Reserves
(in trillion Btu)



■ Coal ■ Natural Gas ■ Oil

U.S. Petroleum Supply
(million barrels per day)



■ Domestic ■ OPEC ■ Non-OPEC

U.S. Fuel Prices
(\$/million Btu at 9/2/08, Q109 delivery)



- Arch owns an **equity interest** in DKRW Advanced Fuels
 - Plan to build a 19,000 bpd **coal-to-gasoline facility** in southern Wyoming
 - Plant would capture CO₂ emissions to enhance recovery in domestic oil fields



Arch's future growth avenues are compelling

