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): March 19, 2013 (March 19, 2013)

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))

Item 7.01 Regulation FD Disclosure.

Beginning March 19, 2013, and at other times thereafter, members of the senior management team of Arch Coal, Inc. (the "Company"), will use the attached slides in various investor presentations. The slides from the presentation are attached as Exhibit 99.1 hereto and are hereby incorporated by reference.

The information contained in Item 7.01 and the exhibits attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall they be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended (the "Securities Act") or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibits are attached hereto and filed herewith.

| Exhibit No. | | Description | |
|----------------|---|-------------|--|
| 99.1 | Arch Coal, Inc. Investor Presentation Slides. | | |

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: March 19, 2013 Arch Coal, Inc.

By: /s/ Robert G. Jones

Robert G. Jones

Senior Vice President — Law, General Counsel and Secretary

2

Exhibit Index

| Exhibit No. | Description | |
|----------------|---|--|
| 99.1 | Arch Coal, Inc. Investor Presentation Slides. | |
| | 3 | |

Powering the Working World.







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.

Slide 2

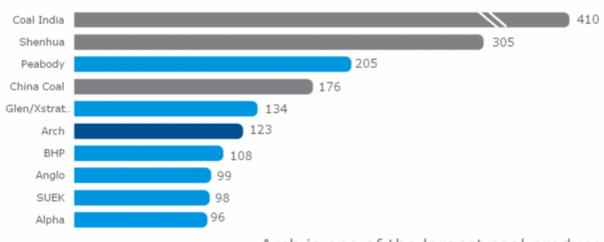


Powering the Working World.

Arch is among the top coal producers and marketers in the world

Top 10 Global Coal Producers

(2012, in millions of metric tonnes)



Government affiliated

Arch is one of the largest coal producers globally, and is the third largest privatesector producer based on volume.







1Q12

2Q12

Powering the Working World.

The fall-off in global metallurgical coal prices is spurring a significant supply rationalization

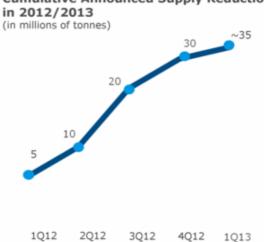
Recent earnings announcements suggest that leading global metallurgical producers are suffering operating losses at current prices.





4Q12

Cumulative Announced Supply Reductions



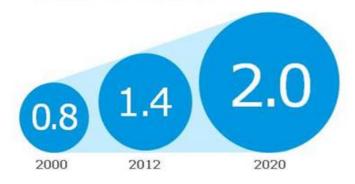
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Projected growth in global steel consumption will drive metallurgical coal demand through 2020

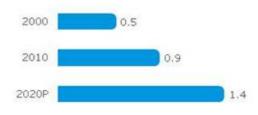
World Steel Production

(in billions of tonnes of crude steel)



Global Metallurgical Coal Use

(in billions of tonnes of coal)



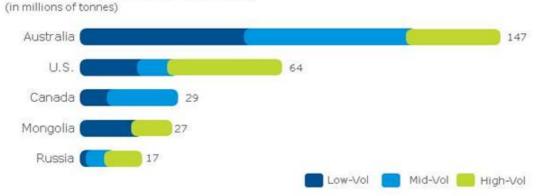
World steel consumption is projected to increase more than 35 percent from expected 2012 level of 1.4 billion tonnes Demand for met coal will be driven by increased utilization at existing steel plants and the projected build-out of new steel capacity

Sources: Consensus forecast of Wood Mackenzie, McKinsey, AME and CRU



The U.S. already plays a sizable and increasingly essential role in global metallurgical markets





- The U.S. is already an essential source of seaborne metallurgical coal — second only to Australia
- U.S. output of low-vol and mid-vol coals is comparable to Canada

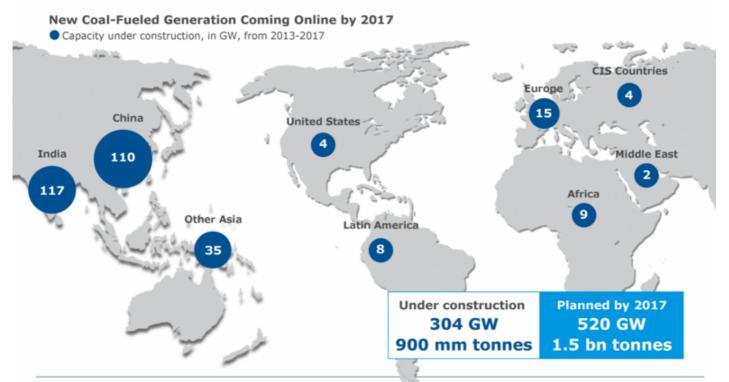
Sources: Wood Mackenzie, T. Parker Host and ACI

Slide 7

ArchCoal

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Nations around the world are building coal power plants to fuel electricity needs



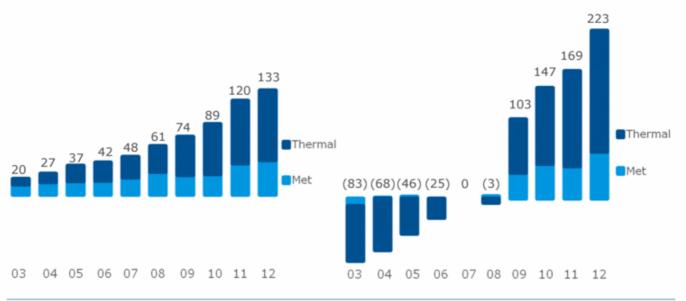
Sources: ACI and Platts International



The trend in seaborne markets is unmistakable ... with little reason to believe it will change soon



China net imports (in millions of tonnes)



Sources: ACI, McCloskey and India Coal Market Watch Data

Slide 9

ArchCoal

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China and India aren't the only places growing ... other parts of Asia are also turning to coal



- Countries like South Korea continue to operate and build coal generation fleets designed for sub-bituminous coal
- Coal imports into South Korea have grown from 98 million tons five years ago to 141 million tons in 2012
- The Powder River Basin, with its consistent quality and expansive reserve base, will play a larger role in the Pacific Rim in the future
 - Sailing time from the West Coast to South Korea is similar to the route from Indonesia

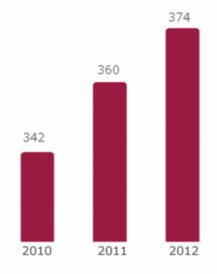
Source: Google Earth Slide 10



European coal consumption continues to rise

Coal Burn in Europe

(in millions of tonnes of coal equivalent)



- With natural gas prices at nearly three times the level prevailing in the U.S., Europe is consuming more coal
- Expiring natural gas contracts as well as an acrimonious history of natural gas purchases from Russia provide further incentives
- Declining indigenous production should translate into increased coal imports

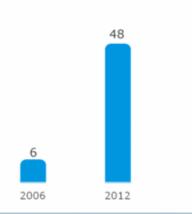
Sources: International Energy Agency, IHS CERA, McCloskey and ACI



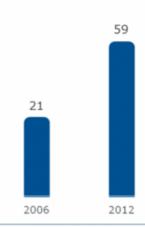
U.S. coal exports have increased significantly in recent years – and we expect that trend to continue

Except for a dip following the global financial crisis, U.S. coal exports have climbed steadily since 2006. While we could see a pause in 2013, we expect this long-term growth trend to continue into the next decade.





U.S. Seaborne Metallurgical Exports (in millions of metric tonnes)



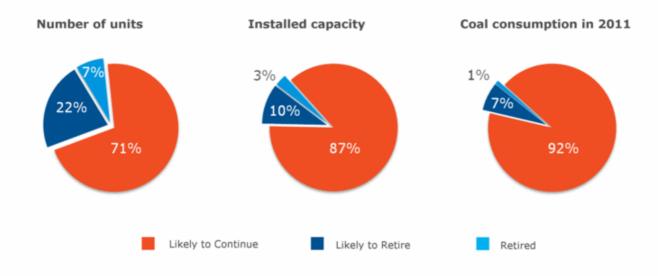
Sources: U.S. Department of Commerce, ACI

Slide 12

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Arch expects 30% of U.S. coal-fueled units to retire, but the impact on consumption won't be as great



Source: Ventyx, ACI Slide 13



As natural gas prices rise, Powder River Basin coal is moving back into the money

25+ Million Tons

should be recaptured by the PRB in 2013

(in millions of tons of coal displaced per mm Btu gas prices)

Powder River Basin vs. Natural Gas

30 -25 -20 -15 -

- We estimated that ~30 million tons of PRB coal consumption was displaced by natural gas in 2012
- We expect domestic consumption of Western Bituminous coal to increase by 8 million tons due to higher natural gas prices
- Central Appalachia will start to become competitive if and when gas prices move above \$4.50

Price assumptions per ton: PRB: \$11. Transportation costs per ton: \$20-\$25. Heat rate assumptions: single cycle gas: 11,000, combined cycle gas: 7,000, PRB coal plant: 10,000.

\$3.50

Slide 14

ArchCoal

\$2.50

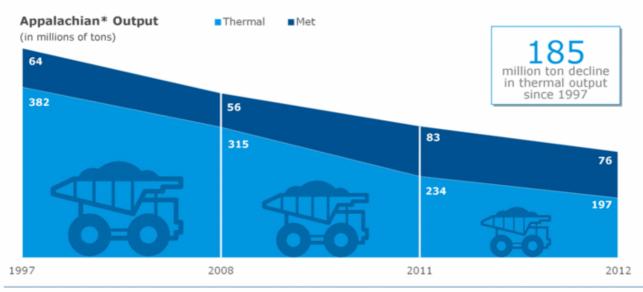
5

0 \$2

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Supply constraints will bring balance to coal markets

Appalachian thermal coal is in long-term secular decline. Arch expects thermal output in the region to fall further in 2013.



Sources: EIA and ACI







Arch is the most diversified U.S. coal producer, and the No. 2 reserve holder in the nation



Slide 17



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Arch maintains an industry-leading position in safety and environmental compliance

Lost-Time Safety Incident Rate

(per 200,000 employee-hours worked)



ACI Environmental Compliance

(SMCRA violations based on state reports)

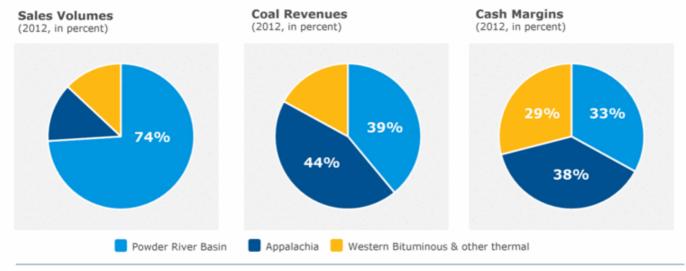


- Arch's average safety performance is four times better than the U.S. coal industry average
 - Deep commitment to a behavior-based process drives continuous improvements in workplace safety and environmental care across all sites



Arch has a balanced and diversified mine portfolio

While Arch's sales volumes are weighted toward low-cost Powder River Basin coal, the company's revenue stream is diversified between eastern (increasingly metallurgical) and western regions — and cash margins are well balanced among all core operating regions.



Slide 19

ArchCoal

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Arch has a leading, low-cost western thermal portfolio with meaningful available capacity

Southern Powder River Basin (2012 production, in millions of tons)



Western Bituminous Region

(2012 production, in millions of tons)



- Arch has a strong position in the PRB, the nation's largest coal supply basin
 - High-Btu, low-sulfur product
 - Available, excess capacity to bring back as demand returns
 - Expect PRB to expand domestically
 - Pursuing export growth off West Coast
- Arch is the leading producer in the Western Bituminous Region
 - Supply to remain constrained in region
 - Targeting exports via Gulf/West Coast

Sources: ACI, MSHA Slide 20



Arch's Appalachian portfolio is low in cost — and increasingly levered to higher-margin met markets

Appalachian Cash Margins

\$187

(2012 reported prices and costs, \$/ton)

Arch earned strong cash margins on its metallurgical volumes in 2012 even while selling lower-quality coal. We expect those margins to expand further as we build-out our higher-quality metallurgical platform.



Sources: Peer earnings and SEC filings, ACI

Slide 21



Arch's metallurgical coal platform is expanding and shifting towards higher-quality coking coals

Metallurgical Coal Production Mix 2011 Low Vol & High Vol A High Vol B & PCI



Slide 22

Slide 23

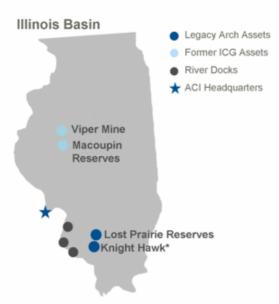


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Arch's platform in the Illinois Basin provides future opportunities

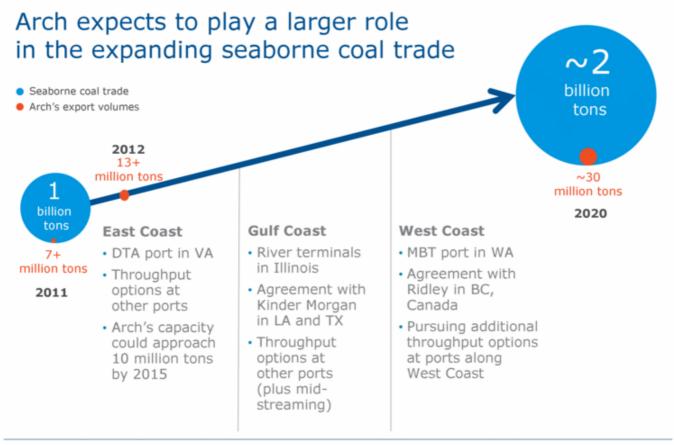
725 Million

tons of reserves



- Viper Mine is low-cost and highly competitive
- Arch owns a 49% equity stake in Knight Hawk, which sold over 4 million tons in 2012
- Arch has built a large portfolio of low-chlorine assets in the basin
- All required permits received for the Lost Prairie Reserves, setting the stage for potential development in the future



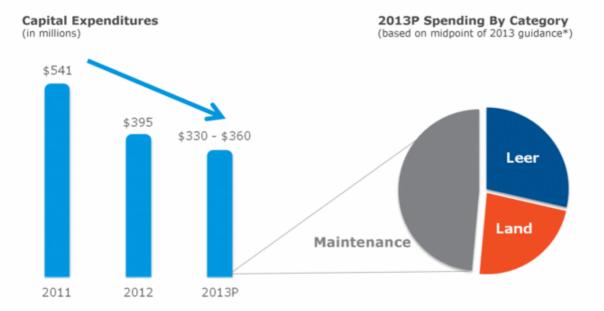


Sources: Wood Mackenzie, ACI Slide 24



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Arch follows a disciplined capital allocation strategy that is scalable based on market conditions



*As given on 2/5/13 Slide 25



Arch has fortified its cash position to weather current market downturn



- Arch's strategy favors holding cash versus maintaining higher borrowing capacity
- Relaxed financial maintenance covenants until late 2015
 - Only a minimum liquidity and senior secured leverage ratio, net of cash, remain in interim
 - No debt maturities until 2016



\$500

*2016 bonds are callable in August 2013

14 15 16 17 18 19 20 21

\$600*

\$40



Arch is well-positioned to benefit as coal markets improve

Arch's diversified operations, competitive cost structure and enhanced liquidity position will allow it to emerge as an even stronger player as the market returns to a more balanced state.

Flexible Capital Structure

Current Focus

- Manage capital
- · Control costs
- Rationalize supply
- Continue met development
- Maximize value of asset base

As Cycle Turns

- Reduce leverage
- Invest in the business via organic and strategic growth
- Return capital to stakeholders
- Maximize value of asset base

Slide 27



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