
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 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):

August 24, 2006

Arch Coal, Inc.

(Exact name of registrant as specified in its charter)

Delaware

1-13105

43-0921172

(State or other jurisdiction
of incorporation)

(Commission
File Number)

(I.R.S. Employer
Identification No.)

One CityPlace Drive, Suite 300, St. Louis, Missouri

63141

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code:

(314) 994-2725

Not Applicable

Former name or former address, if changed since last report

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 August 24, 2006, Arch Coal, Inc. announced that it has acquired an interest in DKRW Advanced Fuels. A copy of the press release announcing the transaction is attached hereto as Exhibit 99.1 and is hereby incorporated by reference.

Item 9.01 Financial Statements and Exhibits.

The following exhibits are attached hereto and filed herewith.

Exhibit No. Description

99.1 Press release dated August 24, 2006

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.

Arch Coal, Inc.

August 24, 2006

By: *Robert G. Jones*

Name: Robert G. Jones

Title: Vice President - Law, General Counsel and Secretary

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press release dated August 24, 2006

News from Arch Coal, Inc.

FOR FURTHER INFORMATION:
Kim Link (314) 994-2936

FOR IMMEDIATE RELEASE

Arch Coal Acquires Interest in DKRW Advanced Fuels

ST. LOUIS (August 24, 2006) – Arch Coal, Inc. (NYSE:ACI) today announced that it has acquired a 25% equity interest in DKRW Advanced Fuels, LLC. In exchange, Arch has agreed to extend its existing option agreement with DKRW Advanced Fuels, to work with DKRW Advanced Fuels to secure coal reserves for two additional coal-to-liquids projects outside of the Carbon Basin, and to invest \$25 million in the company.

DKRW Advanced Fuels is a subsidiary of Houston-based DKRW Energy LLC and the principal developer of the Medicine Bow Fuel and Power coal-to-liquids project in the Carbon Basin of southern Wyoming. DKRW Advanced Fuels and its subsidiaries hold various proprietary coal conversion technology licenses and represent all of DKRW Energy LLC's coal conversion technology and development efforts within the group of DKRW Energy companies.

The Medicine Bow project is being planned as a mine-mouth coal-to-liquids facility that will use coal from Arch's Carbon Basin reserves in southern Wyoming as a feedstock. The project already has licenses in place from leading technology providers, as well as a site with nearby access to a liquids pipeline network that supplies a large and under-served refined products market. In addition, DKRW Advanced Fuels has signed a letter of intent with a regional oil and gas producer that plans to use carbon dioxide generated by the facility for enhanced oil recovery.

"We believe that our strategic partnership with DKRW Advanced Fuels positions Arch to play a significant role in the emerging coal-to-liquids industry," said Steven F. Leer, Arch Coal's chairman and chief executive officer. "DKRW Advanced Fuels is widely recognized as a leader in the coal conversion field, and it has made excellent progress in assembling the core components of a successful facility in southern Wyoming. We look forward to working with DKRW to move this project forward in the months ahead."

"Arch Coal is an industry leader in the United States coal market," said Robert C. Kelly, co-managing partner of DKRW Advanced Fuels. "Arch complements our development efforts with both coal resources and strategic thinking on coal-to-liquids. They are an excellent partner for us."

As part of the transaction, Arch and DKRW Advanced Fuels completed an extension of the existing option agreement on approximately 180 million tons of Carbon Basin coal reserves relating to the Medicine Bow coal-to-liquids project, and entered into a new agreement whereby Arch and DKRW Advanced Fuels will explore potential reserves and project opportunities of similar size to Medicine Bow in two other coal basins.

"We believe coal conversion technologies hold tremendous potential for serving America's future energy needs," Leer said. "By converting its vast and highly economic domestic coal reserves into transportation fuels and synthetic natural gas, the United States can reduce its reliance on foreign sources of energy. At the same time, coal conversion facilities that employ gasification – such as the proposed Medicine Bow plant – have exceptionally low emissions and are capable of producing an extraordinarily clean-burning product slate."

Coal conversion technologies are generally viewed as economic when crude oil is trading at prices above \$35-\$40 per barrel and natural gas is trading at prices above \$5 per million Btus. Light sweet crude oil for October delivery most recently traded at approximately \$72 per barrel on the New York Mercantile Exchange. Natural gas for October delivery most recently traded at approximately \$7 per million Btus.

Arch Coal is the nation's second largest coal producer. The company's core business is providing U.S. power generators with clean-burning, low-sulfur coal for electric generation. Through its national network of mines, Arch supplies the fuel for approximately 6% of the electricity generated in the United States.

Forward-Looking Statements: This press release 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.

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