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): September 30, 2016

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 (IRS 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)
- 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.

In connection with the anticipated effectiveness on October 5, 2016 of Arch Coal Inc.'s (the "Company") previously confirmed Fourth Amended Joint Plan of Reorganization Under Chapter 11 of the Bankruptcy Code, Company management will be meeting from time to time with various analysts and investors. A copy of the presentation materials (the "Investor Presentation") planned to be used by the Company at these meetings is furnished as Exhibit 99.1 to this report. These materials should be read together with the information included in the Company's Annual Report on Form 10-K filed with the SEC on March 15, 2016 and subsequent SEC filings.

The information in this Item 7.01, including the exhibit 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. This information shall not be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference to such disclosure in this Form 8-K in such a filing.

Item 9.01. Financial Statements and Exhibits. Exhibit Description 99.1 Investor presentation materials (October 2016) 2

SIGNATURE

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.

Date: September 30, 2016

Arch Coal, Inc.

By: /s/ Robert G. Jones

Name: Robert G. Jones

Title: Senior Vice President — Law, General Counsel and

Secretary



Investor Presentation 2



Forward-looking information

This presentation contains "forward-looking statements" - that is, statements related to future, not past, events - as well as financial projections. Forward-looking statements and projections address our expected future business and financial performance including our financial projections and often contain words such as "believes", "could", "should", "expects," "anticipates," "intends," "plans," "believes," "seeks," or "will." Forward-looking statements and projections by their nature address matters that are, to different degrees, uncertain and depend upon important estimates and assumptions concerning our financial and operating results, including with respect to our coal pricing expectations, many of which are subject to change. No representations or warranties are made by us as to the accuracy of any such forward-looking statements or projections. Additionally, the projections and forward-looking statements contained herein have not been prepared with a view toward public disclosure, and the inclusion of this information should not be regarded as an indication that we consider it to be necessarily predictive of actual future results. The information contained herein reflect numerous estimates and assumptions with respect to coal market conditions, general economic conditions, weather conditions, natural gas prices, competition in our industry, production capacity, availability of surety bonds, and matters other matters specific to our business, all of which are difficult to predict and many of which are beyond our control. Uncertainties arise from changes in the demand for and pricing of 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 weatherrelated 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. There is significant risk that our current estimates and assumptions may not be accurate and that our actual results will vary significantly from our projected results. Readers are cautioned not to rely on the forward-looking statements and projections contained herein. 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, Free Cash Flow, Adjusted EBITDAR, Adjusted EBITDA and cash costs per ton. 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.



Arch Coal in brief

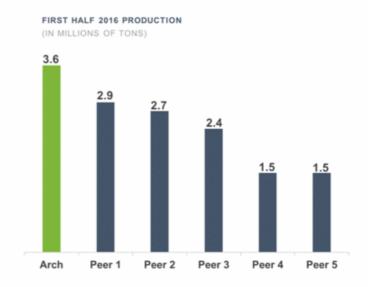
- Arch is the leading producer of metallurgical coal and the second largest producer of thermal coal in the United States
- We have two distinct but complementary lines of business
 - We produce high-quality metallurgical coal in Appalachia for sale into the global steel market
 - We produce highly cost-competitive thermal coal primarily in the Powder River Basin for sale into the U.S. power generation market
- Arch has deep expertise in coal mining, marketing and logistics, and levers those competencies to great effect across these two business lines
- We operate a streamlined portfolio of large, modern, well-capitalized and low-cost mines that can generate free cash flow at all points in the cycle
- Our demonstrated capabilities in mine safety and environmental stewardship underpin our strong operating record and low cost structure





Arch is the largest producer of metallurgical coal in the United States

- Arch's mines produce a broad, globally competitive slate of met products
- With significant reserves and a strong pipeline of growth and efficiency projects, our met platform is well-positioned for success
- We expect to produce 7.0 to 7.5 million tons in 2017 the vast majority of which is uncommitted and exposed to rising prices



Note: Arch's total reflects actual met sales. Peer estimates assume 15% of the total volume from identified met mines is sold as thermal byproduct; actual amounts sold by peers could vary significantly from estimates.

ArchCoal

Investor Presentation 6

Arch operates large, modern, highly efficient metallurgical mines







Note: Production includes some percentage of thermal byproduct



Arch's met operations combine a unique, high-quality product slate with a highly competitive cost structure



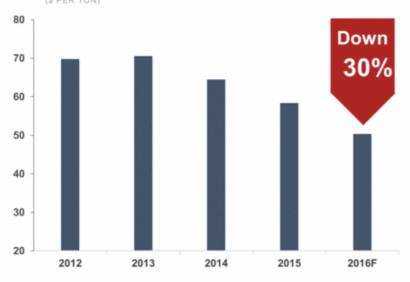




Investor Presentation 8

Arch has a proven record of managing operational costs

ARCH'S TOTAL METALLURGICAL CASH COSTS (\$ PER TON)



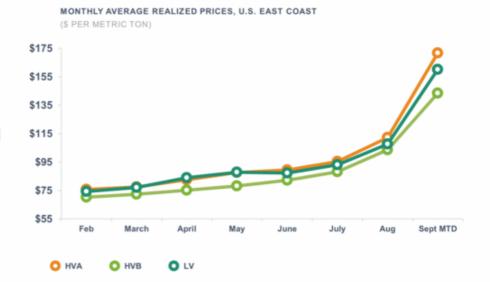
- We have achieved significant cost reductions at our mines in the past three years
- As a result, our met mines are among the most costcompetitive in the U.S.
- We continue to pursue opportunities to increase efficiencies and drive costs out of the business





Metallurgical prices have rebounded more than 120 percent since February

- Supply rationalization, demand stabilization, rising Chinese imports, and a stronger Australian dollar have contributed to an improving metallurgical price environment
- Notably, high-vol A products have traded at a premium to low-vol coals. reflecting their relative scarcity







Investor Presentation 10

Metallurgical coal prices have strengthened significantly in recent weeks

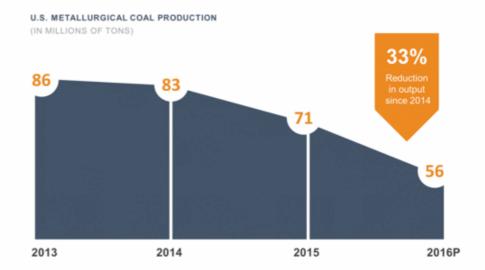




Rationalization in the U.S. metallurgical space is contributing to a more balanced market

- The closure of high-cost U.S. metallurgical mines has helped rebalance the global met market
- Many of the closures are likely to be permanent, while others require sharply higher prices to justify restarting
- Severe capital constraints are also likely to dampen any supply response



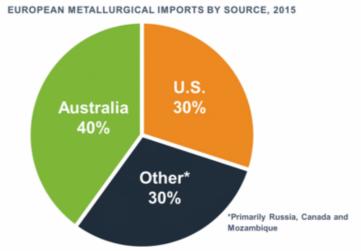


ArchCoal

Investor Presentation 12

U.S. metallurgical coals – particularly high-vol products – are a core component of European coke blends

- While the U.S. share of European met supply will fluctuate somewhat, high-quality, high-vol coals will remain a cornerstone of European coke blends
- U.S. high-vol coals are a "mainstay for Atlantic coke blends" and "now command a higher premium because of lack of direct replacement coals" (Argus Coal Daily, 7/15/16)
- Arch is focused primarily on the high-vol segment, and enjoys a quality and freight advantage relative to Australian supply
- If vessel rates increase and/or Asian demand for Australian met coal strengthens, the U.S. could compete for still greater share in Europe



Total imports = ~60 million tons

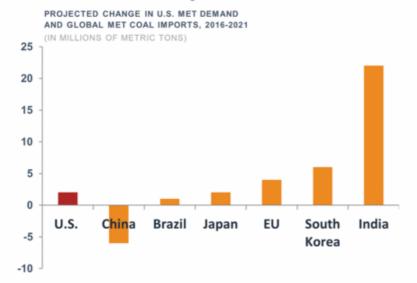


Source: IHS-CERA and Arch

Note: Percentage based on available data, reflecting approximately 80% of European metallurgical mo



Recovery in U.S. demand and modest seaborne growth is anticipated over the next five years



- The domestic market, which is largely captive, is projected to strengthen and should benefit from recent trade cases on steel imports
- Modest growth is projected for Europe, which is also a core market for U.S. met coal
- U.S. met coals have established niche positions in Asia, where demand growth in India, South Korea and Japan should offset potential declines in China
- Despite the conservative forecast, Chinese met imports are actually up 17 percent year-to-date



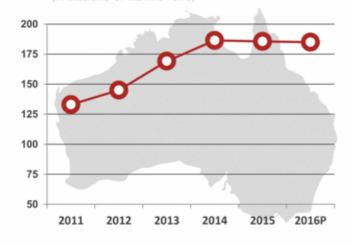


Investor Presentation 14



Growth in Australian metallurgical output has stalled and few new projects are moving ahead

AUSTRALIAN METALLURGICAL COAL EXPORTS (IN MILLIONS OF METRIC TONS)



- Australian met exports have flattened after ramping significantly earlier in the decade
- Few new met projects remain in the development pipeline
- Existing mines will contend with reserve degradation and depletion over time - with one major producer announcing plans to halve production in the five-year time frame
- New supply regions including Mozambique and Mongolia - may expand, but likely to be slow and halting
- Future growth projects in Canada are likely to be offset by depletion at other mines



Source: IEA, except the 2016 projection, which is from the Australian Department of Industry, Innovation and Science



Arch has extensive, comparable, low-cost reserves adjacent to its flagship Leer mine

- Reserves are comparable in geology and HVA coal quality, and will support decades of mining
- Arch could replicate the Leer longwall mine and supplement with low-cost room-andpillar mining on these adjacent reserves
- As at Leer, Arch owns this entire 130-million-ton reserve block in fee*
- In addition, we are adding incremental volumes at modest cost
 - A \$2.5 million preparation plant upgrade at Sentinel is expected to boost volume by 50,000 tons and improve quality of entire output
 - At a similar cost, Sentinel can add another 100,000 tons by augmenting conveyage





Source: Arch and MSHA
* Arch has absolute ownership of these reserves, therefore no royalty fees are assessed on this property.





Arch's thermal portfolio is anchored by one of the largest and most efficient thermal mines in the world

- Arch produces the vast majority of its thermal coal from its operations in the Powder River Basin of Wyoming
- The PRB benefits from superior geology and a low emissions profile
- Arch's flagship thermal operation is the low-cost Black Thunder mine
 - Highest heat content coal in the southern PRB
 - Located on the joint rail line
 - Cost-competitively ships coal into every major power generation market in the U.S.
- The Coal Creek mine rounds out Arch's strong PRB portfolio
 - This low-cost, low-ratio operation is wellpositioned on the joint line and serves a stable customer base

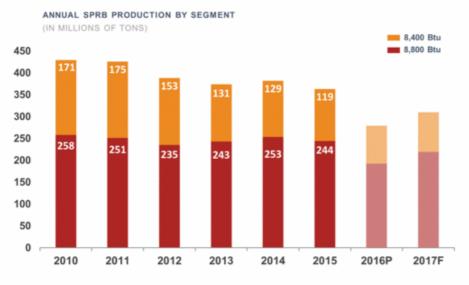


ArchCoal

Investor Presentation 18



Higher-Btu SPRB coals are increasingly advantaged and demand should snap back once stockpiles normalize

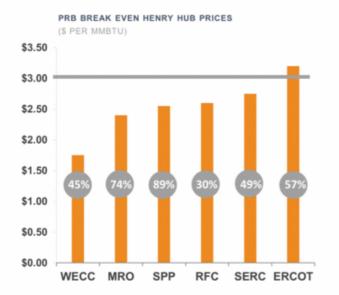


- 8,400 Btu production decreased 30 percent from 2010 to 2015
- Black Thunder's output is currently approaching 9,000 Btus and is particularly wellpositioned





As natural gas prices have rebounded, PRB-served power plants have moved back into the money



- PRB weighted average break even price Share of PRB in region's coal generation mix
- At \$3 natural gas, the PRB is in the money (on average) in all regions other than Texas (ERCOT), where it's close
- Given the recent recovery in gas prices, the PRB should recapture market share in 2017

Source: Arch, EIA, and Ventyx mental non-fuel costs; and appropriate heat rate differentials for NGCC and coal plants



Investor Presentation 20



The consensus forecast shows natural gas averaging above \$3 in future years









Note: 2015 sales volumes: Coal-Mac - 2.4 million tons; Viper - 2.1 million tons; West Elk - 5.1 million tons; Knight Hawk (100%) - 4.7 million tons.

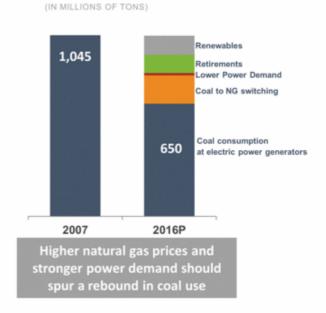


Source: Consensus includes Wood Mac, PIRA, DTC and IHS-CERA Note: Includes thermal coal consumption by power generators and in



Coal has the potential to recapture some but not all of its lost market share

- We estimate that coal has lost more than 150 million tons of demand to coal-togas switching - and that could reverse in a higher gas price environment
- The currently operating coal fleet is operating below a 50 percent capacity factor, and could run at much higher levels if market forces allow
- Coal is unlikely to claw back market share lost to renewables - and coal plant retirements will limit some future upside



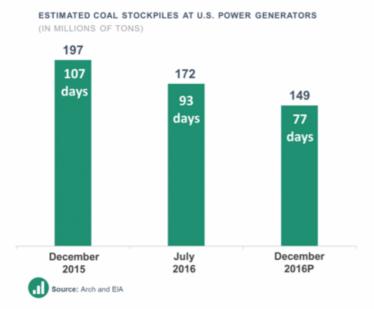
DRIVERS OF LOST ELECTRIC POWER DEMAND





Investor Presentation 24

Higher generator stockpiles continue to pressure domestic thermal markets, but liquidation is ongoing



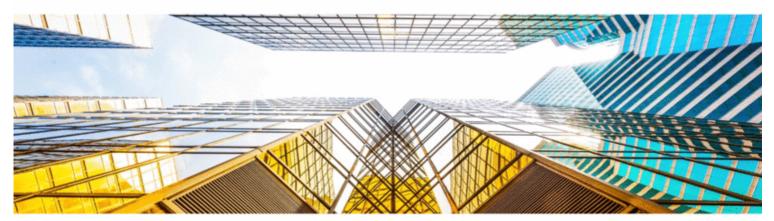
- We expect generator stockpiles to decline by 48 million tons, or 30 days of supply, during 2016
- Even with that reduction, we expect further liquidation during the first half of 2017











Arch Coal at emergence

- Arch will have a dramatically de-levered balance sheet with a modest level of debt
- Reclamation bonding obligations fully covered by third-party surety providers
- Robust liquidity and credit position
- Strong operations that should generate positive free cash flow in excess of SG&A, capex and debt service

Arch has achieved a sustainable capital structure

- Arch has right-sized its balance sheet and, post-emergence, will have a very sustainable capital structure
 - Eliminated nearly \$5 billion in debt
 - Reduced interest expense by \$329 million
- \$200 million securitization facility
 - Three-year term
 - Used primarily to issue letters of credit
- New \$326.5 million term loan
 - 5-year term (2021)
 - Option to PIK if less than \$300 million of liquidity
 - L+900 (1% LIBOR floor)
 - Pre-payable at par
- Projected cash balance of \$311 million at emergence
 - Projected net debt of \$55 million





Note: Information based on draft securitization facility and term loan agreements expected to be appr



Investor Presentation 28



Arch uses third-party surety bonds to secure all reclamation obligations

- Arch is completely replacing self-bonding in Wyoming
- Surety markets have been supportive as a result of our top-tier assets, strong business outlook and proven environmental record
- Surety markets are providing more than adequate capacity for our reclamation bonding requirements, with favorable collateral terms and rates



Total Surety Bond Liabilities = \$550 million

Note: Liabilities as of June 30, 2016; includes active and idle operations



Arch's operating regions are cash flow positive even in a challenging market environment

| REGIONAL PERFORMANCE | | | | | | Bank | Bankruptcy Period | | | | |
|------------------------------|---------|---------|---------|----------|---------|----------|-------------------|-----------------|--|--|--|
| (PER TON) | 04 2045 | 02 2045 | Q3 2015 | 04 2045 | 2015 | Q1 2016 | 02 2046 | Jul-Aug 2016 | | | |
| Powder River Basin | Q1 2015 | Q2 2015 | Q3 2015 | Q4 2015 | 2015 | Q1 2016 | QZ 2016 | 2016 | | | |
| Tons Sold (in millions) | 28.5 | 25.5 | 29.5 | 25.0 | 108.5 | 16.5 | 15.6 | 14.9 | | | |
| Sales Price per Ton | \$13.48 | \$13.24 | \$13.07 | \$12.77 | \$13.15 | \$13.24 | \$13.08 | \$12.86 | | | |
| Cash Cost per Ton | 10.77 | 10.77 | 9.91 | 10.79 | 10.54 | 12.47 | 11.72 | 9.48 | | | |
| Cash Margin per Ton | \$2.71 | \$2.47 | \$3.16 | \$1.98 | \$2.61 | \$0.77 | \$1.36 | \$3.38 | | | |
| Appalachia ⁽¹⁾ | | | | | | | | | | | |
| Tons Sold (in millions) | 3.0 | 3.1 | 3.0 | 2.8 | 11.9 | 2.8 | 2.7 | 1.9 | | | |
| Sales Price per Ton | \$65.23 | \$65.83 | \$62.24 | \$56.06 | \$62.47 | \$51.40 | \$52.62 | \$54.26 | | | |
| Cash Cost per Ton | 51.59 | 62.06 | 48.13 | 59.28 | 55.26 | 48.58 | 56.46 | 51.96 | | | |
| Cash Margin per Ton | \$13.64 | \$3.77 | \$14.11 | (\$3.22) | \$7.21 | \$2.82 | (\$3.84) | \$2.30 | | | |
| Bituminous Thermal | | | | | | | | | | | |
| Tons Sold (in millions) | 1.6 | 1.9 | 2.3 | 1.3 | 7.2 | 0.8 | 1.1 | 1.2 | | | |
| Sales Price per Ton | \$33.42 | \$30.37 | \$30.20 | \$30.32 | \$30.99 | \$32.55 | \$31.13 | \$29.18 | | | |
| Cash Cost per Ton | 24.75 | 19.93 | 19.68 | 25.50 | 21 96 | 35.08 | 30.65 | 17.62 | | | |
| Cash Margin per Ton | \$8.67 | \$10.44 | \$10.52 | \$4.82 | \$9.03 | (\$2.53) | \$0.48 | \$11.56 | | | |
| Arch Coal, Inc. | | | | | | | | | | | |
| Tons Sold (in millions) | 33.1 | 30.6 | 34.8 | 29.1 | 127.6 | 20.1 | 19.5 | 18.0 | | | |
| Sales Price per Ton | \$19.17 | \$19.66 | \$18.45 | \$17.76 | \$18.77 | \$19.38 | \$19.65 | \$18.30 | | | |
| Cash Cost per Ton | 15.17 | 16.55 | 13.85 | 16.14 | 15.37 | 18.46 | 19.08 | 14.50 | | | |
| Cash Margin per Ton | \$4.00 | \$3.10 | \$4.60 | \$1.62 | \$3.40 | \$0.92 | \$0.57 | \$3.80 | | | |
| | | | | | | | | | | | |
| (IN MILLIONS) | | | | | | | | | | | |
| Total Regional Cash Margin | \$132.4 | \$94.9 | \$160.0 | \$47.1 | \$434.6 | \$18.5 | \$11.1 | \$68.3 | | | |
| SG&A | (22.6) | (24.3) | (25.7) | | (8.89) | | (19.0) | (13.1) | | | |
| ARO Accretion ⁽²⁾ | (8.4) | (8.4) | (8.4) | (8.4) | (33.7) | (8.3) | (8.0) | (5.3) | | | |
| Liquidated Damages | (13.0) | (14.3) | (13.0) | (12.6) | (52.9) | (1.6) | | | | | |
| Other Income/(Expense) | (6.5) | (2.6) | 21.9 | (11.6) | 1.2 | 1.2 | 7.6 | (2.4) | | | |
| EBITDAR | \$81.8 | \$45.3 | \$134.8 | (\$11.8) | \$250.1 | (\$10.0) | (\$8.4) | \$47.5 | | | |

(1): Includes Coal-Mac sales of 1.3 million tons in H1 2016, at \$51.10 per ton

(2): Prior to restructuring, Arch included this non-cash reclamation charge in cash costs per ton

Note: Reconciliation to monthly operating reports filed with the bankruptcy court is located in the appendix of this presentation



Investor Presentation 30



Arch has very modest cash requirements, and recent improvements in metallurgical pricing provide upside

> A \$10 per metric ton move in the hard coking coal price is equivalent to \$40-\$45 million of EBITDA

| Key Assumptions in Court Plan | for 2017 |
|-------------------------------|----------|
| Free Cash Flow | \$53 |
| Projected Debt Service (1) | (\$33) |
| Projected Capex | (\$55) |
| Projected Adjusted EBITDA | \$141 |

(1) Management has the option to pay interest on the new term loan in kind in the event that liquidity falls below \$300 million Note: Information based on draft securitization facility and term loan agreements expected to be approved



We expect to emerge with over \$300 million of cash on the balance sheet

| Cash at 8/31 | \$477 | |
|---|-------|--------------|
| Projected September Cash Flow | 31 | / Arch |
| Restructuring Exit Payments | | expects to |
| Additional First-Lien Adequate Protection | (80) | be cash flow |
| General Unsecured Creditor Settlement | (30) | positive |
| Warrant Redemption | (10) | after |
| Other Exit Costs (1) | (77) | emergence |
| Projected Cash at Emergence | \$311 | |

(1) Primarily consists of professional fees, exit collateral and cure payments Note: Several restructuring exit payments to occur after emergence



Investor Presentation 32



Looking ahead

- Global metallurgical markets have bounced off recent lows, and fundamentals appear supportive going forward
- Domestic thermal demand should remain stable in the intermediate term... with some upside if natural gas prices strengthen further
- Arch's operations on both the metallurgical and thermal sides are sustainable in any market environment, and recent rationalization has created a healthier supply equation
- Our financial position is very sound, and cash requirements should remain modest for the foreseeable future
- We have attractive opportunities for low-capital, incremental volume growth at our largescale metallurgical mines in the near term
- We have an exceptional Appalachian reserve position with some of the industry's best undeveloped metallurgical properties



Investor Presentation 34



Reconciliation of Non-GAAP measures

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

Adjusted EBITDAR

Adjusted EBITDAR is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization, the amortization of acquired sales contracts and reorganization items, net. Adjusted EBITDAR may also be adjusted for items that may not reflect the trend of future results.

Adjusted EBITDAR is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded from Adjusted EBITDAR are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDAR 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 EBITDAR presents a useful measure of our ability to incur and service debt based on ongoing operations. Furthermore, analogous measures are used by industry analysts to evaluate our operating performance. In addition, acquisition related expenses are excluded to make results more comparable between periods. Investors should be aware that our presentation of Adjusted EBITDAR may not be comparable to similarly titled measures used by other companies. The table below shows how we calculate Adjusted EBITDAR.

| | Three Months Ended | | | | | | | | | | | | | |
|--|--------------------|-----------|---|---------|------------|------|------------|----------|-----------|---|---------|------------------|-----|-----------|
| (in millions, except per share data) | | 3/31/2015 | | 30/2015 | 9/30/2015 | | 12/31/2015 | | 3/31/2016 | | 30/2016 | July-August 2016 | | FY 2015 |
| | (Unaudted) | | | | | | | | | | | | | 200000000 |
| Net loss | 5 | (113.2) | 5 | (168.1) | \$ (1,999) | 5) 5 | (632.4) | \$ | (206.7) | 5 | (175.9) | \$ (39.2) | 1 5 | (2,913.2) |
| Income tax (benefit) expense | | (3.4) | | (4.1) | (343 | 9) | (22.0) | | (1,1) | | (0.2) | | | (373.4 |
| Interest expense, net | | 96.9 | | 98.6 | 99 | 1 | 99.0 | | 43.3 | | 44.3 | 30.7 | | 393.6 |
| Depreciation, depletion and amortization | | 104.9 | | 97.4 | 104 | 0 | 73.1 | | 63.7 | | 58.5 | 45.5 | | 379.4 |
| Amortization of acquired sales contracts, net | | (3.4) | | (1.6) | (2 | 0) | (1.8) | | (0.8) | | - | 0.1 | | (8.8) |
| Asset impairment and mine closure costs | | - | | 19.1 | 2,120 | 3 | 488.9 | | 85.5 | | 43.7 | | | 2,628.3 |
| Losses from disposed operations resulting from Patriot Coal bankruptcy | | - | | | 149 | 3 | (33.0) | | - | | | - | | 116.3 |
| Expenses related to debt restructuring | | - | | 4.0 | 7 | 5 | 16.4 | | 2.2 | | - 22 | - | | 27.9 |
| Reorganization items, net | | - | ш | - | | | - | \vdash | 3.9 | | 21.3 | 10.5 | | - |
| Adjusted EBITDAR | S | 81.8 | s | 45.3 | S 134 | 8 5 | S (11.8) | s | (10.0) | s | (8.3) | S 47.6 | S | 250.1 |