WYOMING MINING ASSOCIATION
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February 8, 2019

Wyoming Environmental Quality Council
2300 Capitol Avenue
Hathaway Bldg. 1st, Room 136
Cheyenne, WY 82002

RE: Wyoming Mining Association Comments on Proposed Financial Assurance Rules

Dear Chairman Lally and Council Members:

The Wyoming Mining Association (WMA) is a statewide trade organization that represents and advocates for 26 mining company members producing bentonite, coal, trona and uranium. WMA also represents 120 associate member companies, one railroad, one electricity co-op, and 200 individual members.

Wyoming Land Quality Division (LQD) has proposed changes to the bonding rules, Chapters 11 and 20 of the Coal Rules and Regulations, and Chapters 6 and 12 of the Non-coal Rules and Regulations. We support the agency's position that the Wyoming financial assurance rules need to be updated to reflect changes in the mining industry and the financial environment in which we operate. However, we believe the proposal nearly eliminates the use of self-bonding, a tool which has proven successful in Wyoming. This will come at a cost to the industry and the State. We believe a better balance can be achieved than the proposed changes.

Ultimate Parent Entity

WMA supports the concept that in most cases, the ultimate parent entity is the appropriate entity to guarantee self-bonds. However, there may be instances where subsidiaries can provide equivalent guarantees to the State. In previous comments to the Land Quality Advisory Board, several WMA members demonstrated that their subsidiaries met the requirements of language in Section 4(a)(i)(H) of the proposed rules. The proposed definition of the ultimate parent entity could actually be a deterrent to some companies from qualifying for self-bonding for reasons unrelated to the level of financial risk. It ignores non-parent subsidiaries within some very successful national and international corporations that meet the various qualifications of financial strength required to self-bond. This may have the unintended consequence of limiting participation in the self-bonding program because of perceived, but unsubstantiated, financial risks with non-parent operators. In other instances, such as with electric cooperatives, the existence of multiple qualifying parent organizations complicates the ownership structures and therefore the ability to comply with the proposed rule. We recommend the language be revised to allow the Administrator to approve self-bonding at a subsidiary level when the subsidiary meets the requirements of Section 4(a)(i)(H) of the proposed rules.

We also recommend that the language be revised to allow for the approval of self-bonding in the existence of multiple qualifying parent entities. In the case of multiple qualifying parent entities, we recommend the following italicized language (or something similar) be inserted in the definition:

> "Ultimate parent entity" means an entity not controlled by any other entity and is the topmost responsible entity which owns or controls the applicant and is the guarantor for a self-bond. *If ownership or control is shared between two or more entities such that no single owner or single controlling entity meets the definition of ultimate parent entity, then self-bonds may be guaranteed either by a) a "sole-guarantor co-ultimate parent entity" that is not controlled by any other entity, that shares topmost responsibility and ownership or control of the applicant and is the sole guarantor of a self-bond; or b) two or more "co-ultimate parent entities" that are not controlled by any other entities, which together share topmost responsibility and own or control the applicant, and together share as guarantors for a self-bond.*

Chapter 11, Section 4(a)(i)(F) requires the operator **and** the ultimate parent entity have a rating for all bond issuance actions and long-term credit rating with the current year of "Aa3" or higher. For many mining operations in Wyoming, the operator often does not have a credit rating. Only the ultimate parent entity(ies) are rated. This provision of the rule needs to be revised by replacing the word "and" with the word "or".

Limits to Maximum Self-Bonding

WMA supports the Land Quality Division's proposal to put a cap of 75% on the percentage of the calculated bond amount that may be self-bonded. This is an effective way to reduce the financial risk to the state without eliminating this bonding instrument. It also ensures diversity in the financial assurance program; a goal of the Land Quality Division. For companies that are currently self-bonded, the proposed rule appears to constitute a taking. WMA recommends the Land Quality Division revise the proposal to allow remain in place ("grandfathered") at existing levels until some trigger (such as financial health of the guarantor) requires a reduction.

Credit Rating Proposal

WMA can support the credit ratings concept for establishing the eligibility of an operator for self-bonding, but not at the levels proposed by Land Quality Division. At the proposed levels self-bonding will be nearly eliminated as a viable bond instrument in Wyoming. In fact, approximately 90% of the calculated bond liability in Wyoming will not qualify for self-bonding under the proposed rule. This will come at a significant cost to the mining industry, and therefore will increase the risk to the State that its mining industry is less competitive in the national and international markets. The ultimate result is a loss of revenue to the State.
The excessively high credit rating levels proposed in this rule will disqualify most pure mining companies in Wyoming from participating in self-bonding. Our position that the proposal is excessive is evidenced by the following two points:

- The proposed rule will establish the Standard and Poor's (S&P) BBB credit level as the qualifying level for any self-bonding. Attached is an April 19, 2018 article from Moody's Investors Service that discusses third party credit ratings for the U.S. thermal coal industry.

The article states that even with strong balance sheets, low leverage, and good liquidity, it is highly unlikely that the strongest companies will be assigned ratings in excess of Ba3 (S&P "BB-"). Ratings are heavily influenced by unjustified negative sentiment toward the coal market, despite financial health.

This suggests that financial risk to the State of Wyoming will be much less than what is indicated by the proposed credit ratings level. As the attached table published by Moody's Investors Service shows, the highest rated coal mining company in North America at that time had a rating of Ba1 (S&P "BB+"). This rating is two levels below the Land Quality Division's qualifying level of "BBB". There is every reason to believe a similar argument would be made for all mining, regardless of the mineral. In short, the proposed rule has ample conservatism built in to protect the interests of the State.

- An analysis of the financial risk associated with the various credit rating levels shows very low default histories associated with the credit rating levels in the proposed rule. The S&P Global Annual Corporate Default Rates by rating category are summarized below. The default rate at the "BBB" (S&P) credit rating level has averaged 0.22 percent over the past twenty-five years. In fact, the cumulative annual average default rate in all rating categories that would qualify to self-bond under the proposed rule would be 0.73 percent. In other words, the LQD would restrict bonding to companies that have had a recent historic cumulative annual average default rate of 0.73%. This reduces the financial risk to the State to a very low level, but as noted earlier, this comes at a cost to the industry, and a subsequent cost to the State if the industry contracts as a result of the costs.

Average One-Year Global Corporate Default Rates by Rating Modifier

Rating	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C
Average*	0.05	0.08	0.13	0.22	0.25	0.51	0.73	1.25	2.15	6.1	8.99	24.07

*Average Default Rate (1981 – 2017) from, "2017 Annual Global Corporate Default Study and Rating Transitions, April 5, 2018", S&P Global Ratings, available January 15, 2019 at: https://www.spratings.com/documents/20184/774196/2017+Annual+Global+Corporate+Default+Study/a4cffa07-e7ca-4054-9e5d-b52a627d8639

We believe the financial risk to the State is even lower than shown in these statistics because of other changes being made to the rule. Compared to today, the proposal already:

- Reduces, by at least 25%, the maximum self-bond amount of any entity that still qualifies;
- Limits when self-bonding may be employed by an operator to times when the entity could/should be most financially fit, i.e., before the end of mine life and when credit rating thresholds are met;
- Restricts the bonding entity to the ultimate parent.

The proposed rule dramatically reduces the financial risk to the State but may increase revenue risk to the State through excessive restrictions on the self-bonding program. We recommend that extending the credit rating level threshold to the (S&P) “BB-” level, will open the self-bonding program to more entities that have strong financial profiles without significantly increasing the State’s exposure to default.

WMA believes it is extremely important to recognize that the Land Quality Division’s proposed credit rating rule provides an opportunity for advance notice if a bonded entity’s financial health begins to fail. The S&P report cited above describes that default usually occurs after several years of credit rating declines. From page 18 of that report, this point is explained as follows:

> “Data on defaulted corporate issuers globally show that defaults among speculative-grade entities tend to be clustered in the third year after the initial rating, particularly in the ‘B’ rating category (see chart 9). For example, among defaulters that were rated ‘B’ at origination, the default rate climbs to a high of 19% in the first three years and then decelerates thereafter.
>
> Defaulted issuers initially rated ‘BB’ show a similar pattern but peak a little later, in the fourth year.”

This was supported by Ms. Wichmann’s testimony at the September 19, 2018 Land Quality Advisory Board meeting[1]:

> “The credit ratings are fairly stable, meaning they don't look at one single issuance. They look at all of the debt and the assets of the company as a whole for a period of time that usually goes between 12 and 15 months. If there is a market change or something significantly happening in that industry or that particular company, they can change it to a watch rating at which we're alerted immediately. And they can do a new rating within four weeks.”

Clearly, page 8 of the S&P report documents a gradual multi-year fall for firms rated above “CCC” credit ratings. This is also supported and documented in comments from Peabody Energy for the March and September 2018 Advisory Board hearings on these proposed rules.

WMA also supports the proposed rule changes which will require the self-bonding entity to inform the agency within 30 days in case of a credit degrade. Based on the above, in the case of declining credit ratings, the applicant will then have time to replace the bond with a different bonding instrument. Should an applicant’s financial status change disqualifying it from the use of self-bonding, we propose the applicant should be provided a minimum of 90 days to secure and submit alternative bonding pursuant to the requirements of the rule.

The proposed rule does not address the differences between how the various credit-rating agencies operate. For example, there are differences in how often they publish formal ratings and release a formal rating review. While one agency may perform a formal review on an annual basis another agency may only perform a formal review every other year. The proposed rule should address how these differences will be accommodated for consistency among the credit-rating agencies and consistency among self-bonders. One suggestion that

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[1] Page 30, LQD Advisory Board September 19, 2018

may have merit might be to consider Senior Secured Ratings as a benchmark rating. This might allow consistent application of the ratings across the agencies.

WMA believes this proposed rule is not yet ready for promulgation. We have proposed several
revisions to the text of the proposed rule that will increase the usefulness of the final rule while providing the appropriate protections being sought by the agency. The definitions are not clear enough to prevent confusion for the regulator and the regulated community. As noted, the definition of the ultimate parent entity raises questions and may eliminate the ability of many operators from engaging in any level of self-bonding. If this language is not written clearly and fairly it will interfere with the ability of Wyoming's largest businesses to effectively do business in the State. Moreover, if up to 90% of the dollars under bond in Wyoming cannot qualify for self-bonding, this does not constitute a useful tool for the industry or for the State. As written, the proposal will limit the Land Quality Division's flexibility in the bonding program and decreased the opportunity to diversify financial assurance portfolios for the industry.

WMA membership has previously expressed concerns about other provisions of this proposal. Please refer to comments in our letters of February 26, March 22, and September 18, 2018 as well as the letters submitted by various individual members for those Advisory Board Meetings and this rule-making activity.

Thank you for the opportunity to comment, and we encourage you to continue exploring additional and creative options for the reclamation performance bonding program.

Best regards,

Travis Deti
Executive Director

Attachments (3)

Corporate Long-term Credit Ratings

Moody's	S&P	Description
Aaa	AAA	Investment-grade
Aa1	AA+	
Aa2	AA	
Aa3	AA-	
A1	A+	
A2	A	
A3	A-	
Baa1	BBB+	
Baa2	BBB	
Baa3	BBB-	
Ba1	BB+	Non-investment grade
Ba2	BB	
Ba3	BB-	
B1	B+	
B2	B	
B3	B-	
Caa1	CCC+	
Caa2	CCC	
Caa3	CCC-	
Ca	CC	
	C	
C	D	
/		

Appendix: Ratings and key indicators for rated North American coal companies

Exhibit 5

Ratings and key metrics for rated North American coal companies

Latest available data; ratings as of May 30, 2018

Company	Rating	Outlook	Revenue (millions)	EBITDA margin	Debt/ EBITDA
Teck Resources Limited	Ba1	Stable	$9,587	46.5%	1.24x
Alliance Resource Operating Partners, L.P.	Ba3	Stable	$1,796	35.6%	1.07x
Peabody Energy Corporation	Ba3	Stable	$5,579	29.7%	1.34x
Arch Coal, Inc.	Ba3	Stable	$2,299	16.9%	1.04x
CONSOL Energy Inc.	B1	Stable	$1,248	34.5%	2.80x
Coronado Group LLC (Private)	B1	Stable	n/a	n/a	n/a
Conuma Coal Resources Limited (Private)	B2	Stable	$350	n/a	n/a
Natural Resource Partners L.P.	B3	Positive	$374	59.1%	3.77x
Warrior Met Coal, Inc.	B3	Stable	$1,337	44.3%	0.80x
Foresight Energy, LLC	B3	Stable	$955	31.3%	4.58x
Contura Energy, Inc. (Private)	B3	Review for upgrade	$1,650	n/a	n/a
Cloud Peak Energy Resources LLC	Caa1	Positive	$908	9.4%	5.03x
Murray Energy Corporation (Private)	Caa1	Stable	$3,000	n/a	n/a
Bowie Resource Partners LLC (Private)	Caa1	Stable	$576	n/a	n/a
Westmoreland Coal Company	Caa3	Stable	$1,333	14.4%	6.04x

Source: Moody's Financial Metrics™; Moody's Investors Service

MOODY'S
INVESTORS SERVICE

SECTOR IN-DEPTH
19 April 2018

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Coal — US

Negative sentiment among coal investors produces lower bond-implied ratings

» **The market consistently treats coal companies as if they are in worse shape than our ratings indicate.** These bond-implied ratings are one or two notches lower than actual unsecured bond ratings and are the result of the generally negative sentiment in the market toward coal companies, as well as many investors divesting their coal-related holdings because of environmental concerns or "go-green" initiatives. Unless carbon capture and storage technology is developed quickly enough to change coal's image as a dirty fuel, we expect the negative sentiment to continue.

» **After restructurings, lower leverage than other miners**. We rate 13 coal companies with total debt of around $14 billion. Median leverage (Debt/EBITDA) for our rated coal universe is 3.8x, which is significantly lower than companies in the same rating categories that mine other minerals. Many coal companies went through Chapter 11 reorganization, stripping away a large proportion of their debts but they continue to face both secular challenges and high price volatility for metallurgical coal.

» **US coal industry's secular decline also adds to stress**. Coal's share of overall US energy generation will likely drop to 20%-25% within a decade, from about 30% now. This trend is driven by economics, technology, and consumer demand for green energy. A similar global trend toward decarbonization will also affect US coal exports. Recent bankruptcy cases add further stress, with Armstrong Energy Inc. being the latest coal company to enter Chapter 11.

» **Measuring by different metrics**. Because coal is a distressed industry, we focus less on current credit metrics and more on financial policy, mine quality and cost, contract position, liquidity, and a company's potential resilience if prices drop. We view Alliance Resource Operating Partners (Ba3 stable), CONSOL Mining Corp. (B1 stable) and Foresight Energy (B3 stable) as better positioned than what their MIRs indicate.

» **Arch, Alliance, Peabody are strongest in a declining industry**. The highest-rated US coal companies are Alliance Resource Operating Partners, Peabody Energy Corp. (Ba3 stable) and Arch Coal (Ba3 stable). All three have strong balance sheets, low leverage, and good liquidity. However, because US thermal coal is in secular decline and prices of metallurgical coal are very volatile, the bar is high for coal companies to achieve a corporate family rating above Ba3.

Market consistently treats coal companies as if ratings were lower

Bond-implied ratings of coal companies, or the discount from face value at which the bonds trade versus other securities with the same ratings, are often 1 or 2 notches lower than actual unsecured bond ratings (see Exhibit 1). This is the result of the generally negative sentiment in the market toward coal companies, as well as many investors divesting their coal company holdings in light of environmental concerns or "go-green" initiatives.

Exhibit 1

Bond-implied ratings are consistently lower for coal companies

Ultimate Parent Name	Face Outstanding	Issue Date	Maturity Date	Coupon Rate	Moody's Senior Unsecured	Bond Implied Rating	Gap
Alliance Resource Operating Partners, L.P.	400,000,000	4/24/2017	5/1/2025	7.5	B1	B2	-1
CONSOL Mining Corporation	300,000,000	11/13/2017	11/15/2025	11.0	B3	Caa1	-1
Foresight Energy, LLC	425,000,000	3/28/2017	4/1/2023	11.5	Caa2	Ca	-2
Warrior Met Coal, Inc.	350,000,000	11/2/2017	11/1/2024	8.0	Caa2	Caa2	0

Note: Bond Price as of March 30, 2018
Source: Moody's Investors Service

Unless carbon capture and storage (CCS) technology can be developed for deployment on a large scale, and coal's image as a dirty fuel be changed, we expect the negative sentiment to continue. It is also worth noting that some coal companies — such as Warrior Met Coal Inc. (B3 stable) and Coronado Group LLC (B1 stable) — predominantly produce metallurgical coal, which is a raw material for steel makers. The carbon-related risks apply more to the power plants that burn thermal coal. However, many people don't appreciate the difference, and environmentally minded investors separate themselves from coal completely.

Coal companies generally have lower debt following numerous bankruptcies

We rate 13 coal companies with total debt of approximately $14 billion. Median leverage (Debt/EBITDA) for our rated coal universe is 3.8x, significantly lower than other mining peers in the same rating categories. Under our Mining Industry Methodology, adjusted leverage between 3x and 4x maps to a Ba rating. However, many coal companies went through Chapter 11, stripping away a majority of their debts (see Exhibit 2). Additionally, with the decline of the US thermal coal industry and volatility for metallurgical coal, it is critical for a coal company to have a conservative balance sheet.

Exhibit 2

Bankruptcies wash away debt, allowing cleaner balance sheet to emerge

Name	Date Filed	Amount of Debt Restructured (in millions)	Date Emerged	New Debt Issued (in millions)	Corporate Family Rating Assigned	Current Corporate Family Rating
Patriot Coal	5/12/2015	$685	N/A	N/A	N/A	N/A
Walter Energy (Warrior Coal)	7/15/2015	$3,026	9/3/2015	$350	B3	B3
Alpha Natural (Contura)	8/3/2015	$3,725	7/26/2016	$400	B2	B3
Arch Coal	1/11/2016	$5,138	10/5/2016	$326	B1	Ba3
Peabody	4/13/2016	$6,316	4/3/2017	$1,950	B1	Ba3
Armstrong Energy	11/1/2017	$200	N/A	N/A	N/A	N/A

Source: Moody's Investors Service

Long-term decline of US coal industry pressures bond prices

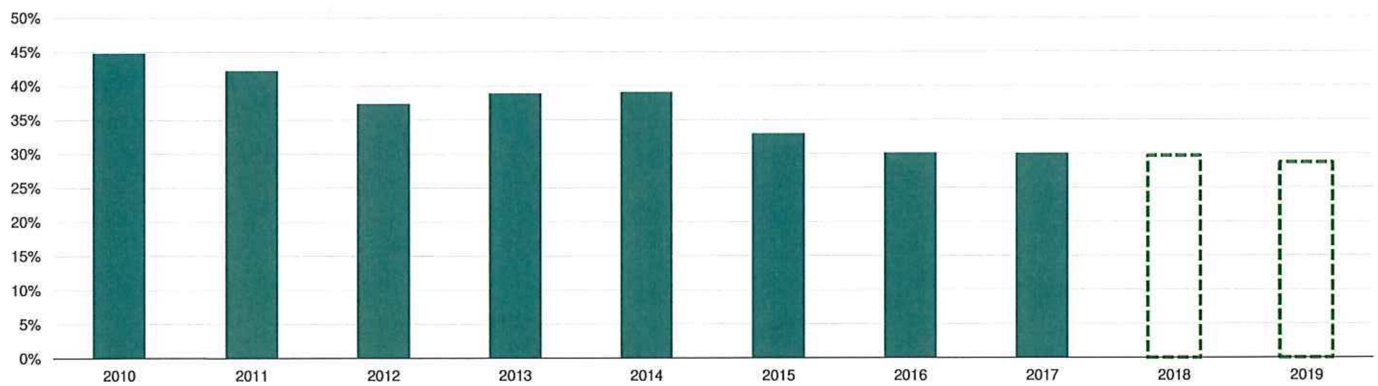
Global concern about climate change led to the December 2015 signing of the Paris Agreement, which reflects near-universal commitment to a goal of limiting global temperature increase, relative to preindustrial levels, to 2 degrees Celsius by the end of the century. Despite President's Trump's announcement in June 2017 that the US would withdraw from the Paris Agreement, we believe that the US coal industry will continue to face secular decline, because of the ongoing substitution of natural gas and renewables for coal.

The shift in fuel mix away from coal, ongoing for several years, is driven in part by cost considerations (cheap natural gas and declining cost of renewables), and in part by long-term uncertainty over what emission-reduction regulations will apply to coal-fired plants in the future. For example, at the moment, no new coal plants are being built in the US, partially because of the uncertainty surrounding the Clean Power Plan (CPP), issued by the Environmental Protection Agency (EPA) in August 2015. The Clean Power Plan essentially prohibited the building of new coal-fired power plants, unless they were equipped with CCS technology. Although the EPA proposed to repeal the CPP in October 2017, public hearings with respect to this move are ongoing and the future of the regulation is uncertain.

CCS is a technology that can capture up to 90% of the carbon dioxide (CO_2) emissions produced from burning fossil fuels to generate electricity or industrial heat. However, we believe any positive effect CCS development could have on the US coal industry is many years away, as it would require significant policy support and a substantial ramp-up in investment. So far, the necessary investment has been lagging, because of local cost economics, as well as political and regulatory factors. Absent material changes in technology and policies related to CCS, US coal production will continue to fall, as we said in our January 2018 report: Coal Mining — US: production to continue sharp, secular decline absent carbon capture development.

This declining trend in US coal adds stress to bond prices. Although our near-term outlook for the US coal industry is stable, domestic coal consumption will remain under pressure over the long term. Natural gas and renewables will capture an increasing share of the nation's fuel mix, while smaller, less-efficient coal plants will continue to be retired. Coal's share of overall US energy generation will likely drop to 20%-25% within a decade, from about 30% now. This trend is driven by economics, technology, and consumer demand for green energy. A similar global trend toward decarbonization will also affect US exports into the seaborne markets.

Exhibit 3
Coal to represent about 30% of US electricity generation and falling



Note: 2018 and 2019 data are EIA estimates as of March 5, 2018
Source: Energy Information Administration

Analysis focuses on qualitative factors

Because coal is a distressed industry, we focus less on current credit metrics and more on qualitative factors, including financial policy, mine quality and cost, amount and price of contracted deliveries, and liquidity, as well as a company's resilience to low coal prices. We view Alliance Resource Operating Partners, CONSOL and Foresight Energy as better-positioned than what the MIRs indicate.

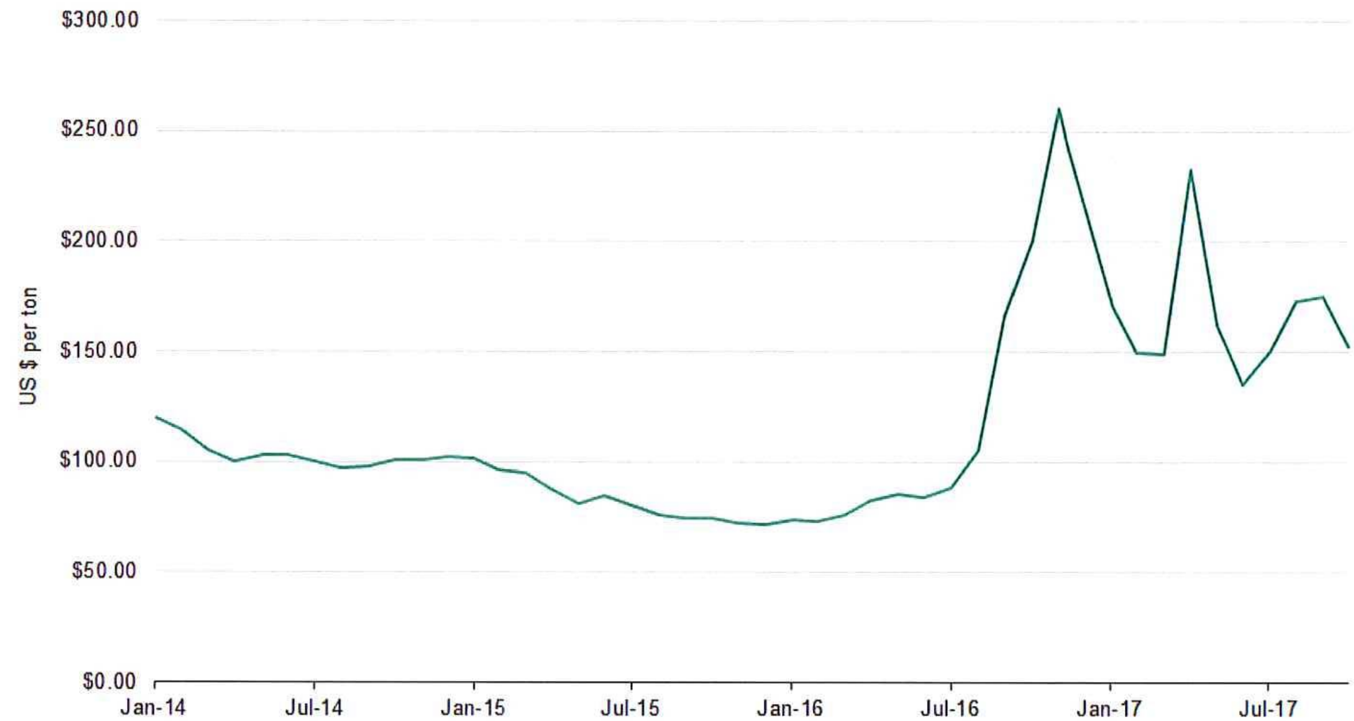
Alliance Resource is one of our highest-rated coal companies. The company has a competitive cost structure, a solid contracted position, and conservative financial policies, along with a concentration in the Illinois Basin, which we view as the better-positioned coal basin in the United States. Similarly, Foresight is one of the lowest-cost underground producers in the ILB, with ample reserves and multiple options to transport coal to export markets. ILB has a low cost structure while its higher sulfur content coal must be burned in power plants with scrubbers, which means that ILB miners' natural customer base is larger baseload coal-fired power plants that are less likely to face retirement.

CONSOL has low-cost mines, a solid contracted position, and stable customer base. The company's operating concentration in Northern Appalachia (NAPP) is offset by manageable capital requirements and good liquidity profile. Like ILB, NAPP producers have good access to export markets. In addition, NAPP coal has the flexibility to sell into domestic and international thermal and high-vol metallurgical coal markets.

US thermal coal is in secular decline, but the margins it brings for miners are relatively stable. Metallurgical coal producers, meanwhile, are subject to highly volatile and unpredictable prices. Met coal benchmark settlements have fluctuated between $82 and $285/metric tonne over the past two years. We incorporate pricing sensitivities ranging from $95 to $145/mt to test a company's resilience if coal prices drop. Maintaining a strong balance sheet and liquidity are critical for the coal producers.

Exhibit 4

Metallurgical coal price is highly volatile



Source: Metal Bulletin Hard Coking Coal $/MT FOB DBCT

Arch, Alliance, Peabody are strongest in declining industry

The highest-rated US coal companies are Alliance Resource Operating Partners, Peabody Energy and Arch Coal, all rated Ba3. All three companies have strong balance sheet, low leverage and good liquidity. Alliance Resource is a pure thermal coal player with very strong credit metrics. The company has never filed for bankruptcy.

Both Peabody and Arch Coal recently emerged from Chapter 11 with a manageable capital structure and have revenue from both thermal and met coal. In addition, Peabody has a diverse platform, including nine mining complexes in Australia.

While the credit metrics of all three companies are strong for the rating category, the bar is high for the coal companies to achieve a corporate family rating above Ba3, given the secular decline of the industry and inherent volatility of met coal prices.

Exhibit 5

Peer comparison of three Ba3 rated coal companies

	Alliance Resource Operating Partners	Peabody Energy Corporation	Arch Coal, Inc.
	Ba3 Stable	Ba3 Stable	Ba3 Stable
Revenue (in US Billions)	1.8 (B)	5.6 (Ba)	2 (B)
Business Profile	B	B	B
EBIT Margin	18.6% (A)	12% (Baa)	5% (Ba)
Return on Average Tangible Assets	15.9% (A)	6% (Ba)	5% (Ba)
EBIT/Interest Expense	8.2x (A)	2.5x (Ba)	4x (Baa)
Debt/EBITDA	1x (Aa)	2x (Baa)	2x (Baa)
Debt/Total Capital	36.3% (A)	50% (Ba)	40% (Baa)
(CFO-Dividends)/Debt	48% (Aa)	35% (A)	60% (Aaa)
Financial Policy	Ba	B	B
Key EBITDA Contributors	ILB thermal, Appalachia thermal	PRB thermal, Australia thermal/met	PRB thermal, Appalachia met

Note: based on our 12-18 month forward views
Source: Moody's Investors Service