Peabody's Strategies for Survival Ignore Market Realities and Risk Backfiring

Institute for Energy Economics and Financial Analysis
IEEFA.org

February 2016

By Tom Sanzillo, Director of Finance, IEEFA
Tim Buckley, Director of Energy Finance Studies, Australasia, IEEFA
Clark Williams-Derry, Senior Researcher, Sightline Institute

Executive Summary

Peabody Energy Corporation's recovery strategy is unlikely to produce a turnaround in its dire financial condition. The company has not come to grips with the dramatic and harsh consequences of a worldwide collapse in coal price and demand. The company's efforts to manage its risks through distressed sales, debt reduction, accounting treatments and maintaining the status quo on self-bonding obligations are undermining its already weak financial fundamentals.

Peabody's 2015 annual financial performance report shows a fourth consecutive year of losses. Revenues have declined from a peak of $8.1 billion in 2012 to $5.6 billion in 2015. Revenue weaknesses are driven primarily by a significant decline in coal prices in the U.S. and a more severe drop in thermal and metallurgical coal prices on the global market. Peabody's export markets out of the U.S. are weak and expected to decline through 2017. Coal mining and shipments out of Australia (where Peabody has substantial reserves) are similarly hampered with both China and India reporting a significant and sustained reduction in demand for coal imports.

Looking ahead, price recovery for coal in the U.S. will be modest at best as low natural gas prices persist and as investment in renewable energy continues to sap market share from the coal sector. While analysts see modest prices increases, the U.S. Energy Information Administration (EIA) projects that coal prices will decline slightly through 2017. Prices in the global thermal coal market are expected to decline for the next seven years from today's low level of $50 per ton.[1]

Peabody has announced three separate initiatives it says will support a return to solvency:

First, raising cash and shedding liabilities by selling non-core assets at distressed prices; second, a debt-exchange plan to lower Peabody's annual interest burden and its unsustainable debt load; third, controlling costs by maintaining eligibility for self-bonding.

We see significant risks to this strategy because it fails to confront the fundamental decimation of coal prices and the follow-on effects on company profits and future investments. Peabody's actions will produce some short-term cash benefits, but will do little to improve the current imbalance between supply/demand and revenue/expenses. Further, the company's sale of its coal assets will exacerbate the already oversupplied coal market, while the fire-sale disposal of the Prairie State Energy Campus in southern Illinois will harden damage to Peabody's reputation.

Some key metrics noted in this report:

- Peabody Energy has reported annual operational losses for 2015 of $768 million ($2.0 billion minus $1.27 billion in one-time impairment). Revenues are down year to year from $6.79 billion to $5.6 billion. Long-term debt levels rose during the year and at $6.3 billion are unsustainable. Stockholder equity value has plummeted.

[1] http://quotes.esignal.com/esignalprod/quote.action?symbol=NCFQ-ICE

- Prices for Powder River Basin and Illinois Basin coal, two of Peabody's core regions, have dropped by 19% and 38% respectively since 2012. Year-to-year prices have dropped in the Illinois Basin by over 30%. Some optimistic coal-price scenarios see modest improvement in prices but even the most buoyant of those would not reverse Peabody's declining fortunes.
- Since 2011 the price of Newcastle coal, the global benchmark for thermal coal, has declined from a peak of $140.00 per ton to $52.00 per ton.[2] Over the next six years, the price of Newcastle coal is expected to decline to $42.00 per ton by 2022.

These metrics indicate that, all in all, Peabody's current and recent efforts to recover its financial footing contain serious downside risks with limited, mostly short-term benefits that will prove ultimately ineffective.

The core findings of this report:

- Peabody's asset sales are counterproductive. Although the announced sale of $435 million in distressed assets from the three transactions described in this paper may produce short-term cash benefit, the use of cash in this manner simply masks the fact that Peabody's underlying core economic activity, mining coal, is not profitable. The cash infusion, by necessity, will be used to help the company meet its expenses, including its $465 million annual interest payment. Ironically, the mine sales will also contribute to the domestic and international oversupply of coal by encouraging the continued operation of existing mines and the reopening of closed mines in Colorado, New Mexico and Australia.
- The proposed debt exchange is too little, too late. The company has initiated a $1.5 billion debt exchange with an anticipated reduction of principal of $730 million. The proposed transaction must be approved by bondholders and is expected to achieve a reduction of an estimated $47 million in annual interest payments. Relative to the overall size of the Peabody debt burden and ongoing net losses, the savings are too small to have a meaningful impact on company finances. Operational and debt management actions will be required to staunch operational losses.
- The company's pledge of existing mines as collateral for the new debt is problematic. Peabody has offered a special vehicle to support the underwriting of a portion of the new debt issuance. That special vehicle will pledges four mines—three in the Illinois Basin and one in Arizona—as collateral to its creditors. Peabody's financial presentation of the three Illinois Basin mines is partial and overly optimistic with regard to current operations and future coal prices. The implied price outlook is unsustainable. The Arizona reserves currently serve as a mine-mouth facility supplying coal at a price that exceeds the spot price of coal in every region of the country. This pricing is likely to be unsustainable. Peabody offers no forward-looking price outlook in its statement to investors.
- The company's attempt to avoid additional operational costs by maintaining the status quo on its self-bonding portfolio is highly risky. Peabody Energy is taking steps to preserve a $1.3 billion portfolio of self-bonding agreements in several states. Self-bonding allows companies to pledge company assets to cover mine reclamation obligations in lieu of securing third-party bond payments. Self-bonding allows Peabody to save tens of millions

[2] http://www.indexmundi.com/commodities/?commodity=coal-australian&months=60

annually on premium payments, while freeing up any cash that surety companies would otherwise require as collateral for their bonds. Peabody's deteriorated financial condition by all rights should make the company ineligible for this benefit because the company fails to meet a significant threshold test for corporate solvency by a factor of three. Some states have granted latitude to coal companies experiencing financial distress. The federal government and some analysts have raised questions about whether the liberalization of the rules is an abuse of the program and exposes state governments to environmental risk, financial losses and adverse actions by the federal government.

Peabody Energy, like the coal industry in general, has become a wealth hazard for its shareholders and is now struggling to maintain solvency. The company is also struggling to maintain its role as an energy industry leader at a time of diminished demand for coal worldwide. The actions it is undertaking are designed to mitigate the effects of overleveraging on the company's balance sheet. But Peabody's challenges go far beyond its debt practices, and are not being adequately addressed by its current cost-control measures. Current coal markets and current outlooks for the company highlight the fact that the coal industry in general—and perhaps Peabody in particular—must become substantially smaller to service. More mines need to close.

Peabody's reduction plans are inadequate and do not fully responsive to the declining price of coal. Further, the company is selling distressed assets into an already oversupplied market such that it is taking massive value cuts relative to anything on offer even a year ago, let alone five years ago, when Peabody was making what it called its "company transforming" top-of-the-cycle acquisitions. Its asset sales today are an attempt to remove the largely unfunded liabilities of the mines and the company's workforce from Peabody's balance sheet. The sale of the mines to competitors, however, threatens to compound the downward price spiral of an already oversupplied market—which is the root of the company's problem.

Finally, as noted in several places in this study, Peabody Energy needs to be far more transparent in its disclosures to investors and the public. In a time of severe financial constraint, transparent communication, rather than incomplete reporting and unsupported optimism, would help chart a clearer course for the company. Further failure by Peabody to fully acknowledge the dilemmas created by falling prices only tarnish the company's disclosures regarding revenues, reserves and potential turnaround strategies.

Peabody Energy's 2015 Earnings Reports Show a Steady Downward Spiral

Peabody Energy Corporation's 2015 results, released on February 11, 2016, reveal a steady downward spiral for the company. Among the company's financial woes are declining revenues, diminished equity value to stockholders, too much debt, asset impairments, and enterprise-wide losses for the fourth straight year.

Table 1: Peabody Energy Selected Operating Data: 2010-2015 (in $ billions)[3]

Item	2010	2011	2012	2013	2014	2015[4]
Revenues	6.668	7.895	8.077	7.013	6.792	5.609
Expenses	5.317	6.300	7.905	7.338	6.927	5.790
Net Operating	1.315	1.596	.172	(.324)	(.135)	.181[5]
Interest	.212	.220	.381	.409	.412	.465
Net after Interest	1.138	1.397	(.209)	(.734)	(.547)	(.653)[6]
Net to stockholders	.774	.957	(.585)	(.524)	(.787)	(2.044)

Low coal prices are at the root of the company's revenue losses. In the United States, low coal prices can be attributed to low natural gas prices, market share gains by wind and solar energy, the erosion of demand by energy efficiency, and a cloudy regulatory climate. These changing market forces have driven coal's market share of electricity in the United States down from 50% in the early 2000's to 34% in 2015 and annual coal consumption for electricity has declined nationwide from 1.1 billion tons to 750 million tons.[7] The price of coal has dropped significantly throughout the country. For the foreseeable future coal prices are expected to remain very low, making mining in some parts of the country financially unsustainable.[8]

International markets are also in decline as weaker demand for thermal and metallurgical coal has driven prices to historic lows.

[3] http://www.peabodyenergy.com/content/162/sec-filings, Peabody Energy, Form 10K, February 25, 2015, p. 43. (Form 10K-2014)
[4] http://www.peabodyenergy.com/content/162/sec-filingshttp://www.peabodyenergy.com/content/162/sec-filings, Form 8K, February 11, 2016 (Form 8K-2016 Year End)
[5] Our calculation based on method used in prior 10K filings.
[6] Our calculation based on method used in prior 10K filings
[7] https://www.eia.gov/forecasts/steo/query/: Custom Table Builder/U.S. Coal/Electric Power Sector Coal Consumption 2012-2017.
[8] https://www.wsws.org/en/articles/2015/08/05/coal-a05.html

Table 2: Peabody Energy Selected Financial Data Assets, Long Term Debt and Stockholder Equity: 2010-2015 ($ in billions)

Item	2010	2011	2012	2013	2014	2015[9]
Total Assets	11.36	16.73	15.88	14.13	13.2	11.0
Long-Term Debt	2.700	6.657	6.250	6.0	5.99	6.3
Stock Equity	4.689	5.515	4.938	3.950	2.720	.87

Peabody assumed significant new debt levels in the earlier part of the decade (See Table 2) in anticipation of a continuation of robust international and domestic coal demand and favorable pricing.

Its most significant debt load was acquired due to the purchase of the Macarthur Coal mine in Australia ($5 billion acquisition price).[10] But the markets went sour: demand fell off and prices collapsed. In addition, a combination of asset sales and value impairments (see Table 3) has pushed down the total asset value of Peabody Energy.

Table 3: Peabody Asset Impairments: (2010-2015) ($ billion)

	2010	2011	2012[11]	2013[12]	2014[13]	2015[14]
Impairments	0	0	.929	.528	.154	1.28

Peabody management has taken several steps to maintain company solvency during this challenging period. They have reduced costs at mining operations, cut capital expenditures and consolidated some mining operations. Peabody is currently involved in several asset sales of non-core operations including recent announcements of U.S. western coal sales, Australian mine transactions and the sale of its share of the Prairie State coal-fired power plant in Illinois. The company also recently announced a debt exchange of $1.5 billion of its $6.3 billion in outstanding debt.

Peabody's Presentations of Coal Prices Do Not Reflect Market Realities

United States domestic coal prices have declined significantly from the beginning of 2012 through the present. CAPP, PRB 8800, and ILB 11500 spot prices declined during this period by 30%, 17%, and 38%, respectively. These price declines have fundamentally altered the revenue

[9] Our calculation based on method used in prior 10K filings
[10] http://dealbook.nytimes.com/2011/11/16/peabody-energy-takes-full-control-of-macarthur-coal/
[11] Form 10K-2014, p. F-16, $806 million Australia mines and $45 million Midwest mining.
[12] Form 10K-2014, $391 million, two mines in Australia and $66.3 in Eastern United States mines, additional $6.5 million unidentified mining write down.
[13] Form 10K-2014, p. F-16: Australia $78.6 million observed weaknesses in seaborne market (thermal and metallurgical); 68.4 million in Colorado and Indiana "non-strategic, undeveloped coal properties", no interest from any buyers
[14] Form 8K-2016 Year End

position of every coal company in the United States and have contributed to 50 coal company bankruptcy filings since 2012.

Table 4: Selected Price Trends from CAPP, PRB and Illinois Basin: 2012-2016

Region	February 2012	February 2016	Pct. Change	Peak Price	Date of Peak
CAPP -NYMEX	68.00	47.55	-30%	120.00	August 2008
PRB 8800	11.95	9.95	-17%	19.00	January 2006
ILB 11500	65.45	40.40	-38%	90.00	August 2008

The principal drivers of these dramatic and now persistent low coal prices are low natural gas prices, renewable energy and regulatory uncertainty. Natural gas prices peaked in June 2008 at $12.69 mmbtu dropping to $2.67/mmbtu by early 2012.[15] Since then the price of natural gas has declined further and is currently in the $2/mmbtu range.[16] The EIA projects natural gas prices rising through 2017 to $3.32/ mmbtu. [17]

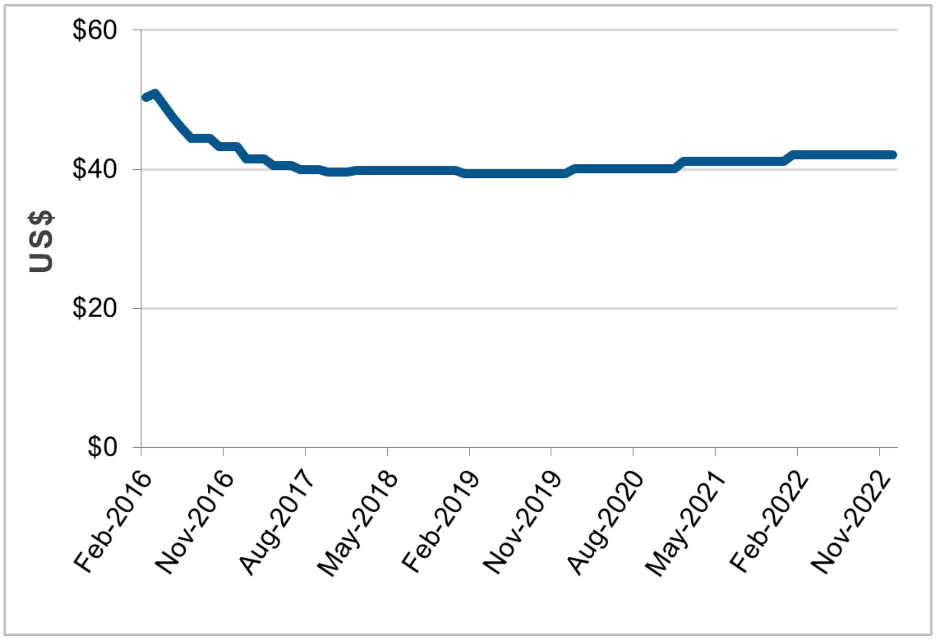
Coal prices in critical regions across the United States are expected to stay low in the coming years. The EIA's Short Term Energy Outlook through 2017 projects lower coal prices for coal plant operators from 2015 levels.[18] Both Platts[19] and SNL's forward-looking outlooks[20] anticipate modest growth in coal prices across all sectors during this period. SNL is projecting a price of $9.48 per ton for PRB 8800 through 2016.[21] These trends are reason to anticipate further downward pressure on Peabody's revenue position. Yet, Peabody Energy estimates in its 4Q 2015 report that its current PRB pricing is at $13.45 per ton for 2015,[22] and they show a small increase in their contract priced coal for 2016.

In the international seaborne coal trade, low prices are expected to continue for the foreseeable future. The price of Newcastle coal peaked in July 2011 at $142.00 per ton.[23] The current price of Newcastle coal is $52 per metric ton. Over the next seven years the price of seaborne coal is expected to decline further and hit $42.10 in 2022 (see Table 5).[24] The seaborne thermal market is currently oversupplied as China and India are making strides to reduce their respective dependence on imported coal. In addition to a weak outlook for the thermal seaborne sector, metallurgical markets are expected to remain weak as most major steel producing and consuming nations curtail demand.[25]

---

15 https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm , Henry Hub Natural Gas Prices, 1998-2016.
16 Some private analysts see the $2 mmbtu price through 2018. Tom Palicki, Lack of demand may keep natural gas prices near $2mmbtu until 2018, SNL, February 10, 2016.
17 http://www.eia.gov/forecasts/steo/report/natgas.cfm
18 http://www.eia.gov/forecasts/steo/query/ Custom Table Builder/U.S. Coal/Cost of Coal Delivered to Electric Generating Plants, 2012-2017.
19 Platts Coal Trader, Platts Daily OTC Assessments, February 2, 2016
20 SNL, SNL Coal Price Forecast, All Regions, February 6, 2016. This is a proprietary database. Information available upon request.
21 SNL, SNL Coal Price Forecast, Powder River Basin, PRB 8800, February 6, 2016. This is a proprietary database. Information available upon request.
22 Form 8K-2016 Year End
23 http://www.indexmundi.com/commodities/?commodity=coal-australian&months=60
24 http://www.barchart.com/commodityfutures/ICE_NewCastle_Coal_Futures/LQ
25 http://www.rba.gov.au/publications/bulletin/2015/jun/pdf/bu-0615-3.pdf.

Table 5: Futures Outlook for Newcastle Benchmark Coal 2016-2022[26]



Sale of Distressed Assets Has Short Term Benefits But Is Counterproductive

In order to avoid bankruptcy, Peabody Energy has adopted an aggressive debt management program based on raising cash through distressed sales of assets in order to pay interest on the existing debt. Since 2015 Peabody has announced three separate transactions to divest itself of non-core assets and raise cash[27]: the sales of the Wilkie Creek mine in Australia, three mines in its U.S. west and southwest reserve portfolio, and its interest in the Prairie State coal plant in Illinois.

Table 6: Peabody Energy's Estimated Cash Benefits from Recently Announced Asset Sales

Transaction	Amount US$m
Wilkie Creek	$20
Mines in NM and CO	$358
Prairie State	$57

[26] http://www.barchart.com/commodityfutures/ICE_NewCastle_Coal_Futures/LQ
[27] The company has also identified a number of other asset sales in its Form 10Q-3Q-2015, p. 65.

Wilkie Creek:

Peabody Energy announced the sale of Wilkie Creek , one of its Australian mines, to Sekitan Resources (a wholly owned Australian subsidiary of Energen) in July 2015. The sale was announced as including $20 million in cash plus $55 million in assumed liabilities. [28] Peabody had originally estimated the mine value at $500 million.[29] The closing of the sale to Sekitan Resources was expected in the third quarter of 2015[30] but has been delayed by financing issues.[31] At the time of the announced sale, the mine was closed and had laid off 200 employees.[32] According to published reports the new owner plans to reopen the mine and commence coal production post-closing.[33]

Sale of Mines in New Mexico and Colorado[34]

In November 2015 Peabody announced that it would sell three mines – Twentymile in Colorado and El Segundo and Lee Ranch in New Mexico to Bowie Resource Partners for $463 million ($358 million cash and $105 million in liability assumptions). [35] Peabody stated it is refocusing its efforts on the Powder River Basin, Australia and Illinois Basin going forward. Peabody lists the three mines in New Mexico and Colorado as having 300 million tons in proven and probable reserves and capacity to produce 11 million tons of coal per year. The proceeds from the sale are to be used for "general corporate purposes and other deleveraging activities". The sales also have the effect of removing $300 million in reclamation liabilities from Peabody's balance sheet. The sale to Bowie Resource Partners is expected to be underwritten by affiliates of Blackstone and to close by the end of the first quarter of 2016.[36]

Prairie State Energy Campus

The Prairie State transaction will produce $57 million and may allow Peabody to escape liability for a host of financial and operational challenges facing this new 1600 MW coal plant in Marissa, Illinois. Peabody was the lead developer on the project a decade ago and sold its interests to state power agencies in Ohio, Indiana, Illinois, Kentucky and Missouri. Over 200 Midwest communities have bought into the plant and collectively the power agencies and municipalities have assumed $4.75 billion in bond indebtedness. The plant opened in 2012 and has not produced electricity at prices that were described by Peabody and other members of its development team while they were promoting the project. After three years of operation,

[28] http://www.peabodyenergy.com/content/120/press-releases
[29] Rohan Showmanship, *Peabody Energy selling Australian Thermal coal mine in $75M deal*, SNL, July 8, 2015.
[30] http://www.peabodyenergy.com/content/120/press-releases
[31] http://www.peabodyenergy.com/investor-news-release-details.aspx?nr=908
[32] http://www.australianmining.com.au/News/Peabody-axes-200-jobs-shuts-Wilkie-Creek
[33] http://mininglink.com.au/story/new-owner-has-bright-plans-for-wilkie-creek-mine
[34] http://www.peabodyenergy.com/content/120/press-releases
[35] http://www.peabodyenergy.com/content/162/sec-filings, Form 8K, Press Release, November 20, 2015. (Form 8K-2015 Bowie)
[36] Form 8K -2015 Bowie

the price of electricity still exceeds market prices by over fifty percent, even after recent improvements in its operational performance. [37]

The existence of one or more SEC investigations related to Peabody's participation in Prairie State raises questions about the transaction, as noted by some investment analysts.[38] In addition the communities of Batavia, Illinois and Hermann, Missouri have engaged counsel to obtain relief from the take-or- pay contract provisions. Peabody is not named in either case. It is, however, prominently mentioned as the driving force behind the deal in a citizen class action suit filed by residents of Batavia, Illinois.[39]

Although Peabody Energy has not declared any gains since 2012 on its 5 percent interest in Prairie State it has stated that it achieved a modest profit with the sale of its interest in the plant.[40] This is hard to reconcile with Peabody's SEC filing showing the company invested $246 million[41] in the project and will receive $57 million back from the sale.

Peabody appears to be exercising its right to exit the Prairie State investment prior to its original agreement to stay with the plant for at least the first five years of operation.

Asset Sales Provide Immediate Cash, But Have No Longer Term Strategic Plan and Will Undermine Market Recovery and the Company's Reputation

The sale of distressed assets is unlikely to result in any substantial improvement in Peabody's finances. Instead, it is likely to forestall difficult short term decisions and will be counterproductive.

First, the proceeds from the sale are being used to generate a short term cash benefit. The company claims to be using the cash from the sales for deleveraging of debt. However, the cash comes in at a time when Peabody's mining activities are not generating sufficient cash to cover expenses (including interest), declare a profit and finance sustaining capital expenditure, let alone future growth. Peabody now must rely on a series of one-time revenue infusions from the asset sales to maintain itself as a going concern. These actions push off more difficult financial decisions. The action does not solve the company's debt problem nor is it part of a strategic plan to correct the fundamental financial imbalances facing the company.

Second, the two mining transactions serve to exacerbate the current domestic and international oversupply of coal. These distressed sales actually serve to recapitalize marginal

---

[37] A recent Fitch Rating on a Missouri refinancing of Prairie State debt notes that after recent operational performance improvements at the plant it now produces electricity for $76 Mwh. The report also discloses that if the plant reaches is 85% capacity level than the price will drop to the mid $60's Mwh. http://www.businesswire.com/news/home/20160203006383/en/Fitch-Rates-Missouri-Joint-Muni-Electric-Utilitys. The original bond statements projected a price of $44 Mwh and the current price of on peak power at MISO hubs ranged from $22.14 to 26.61 Mwh in January 2016.

[38] http://seekingalpha.com/article/3835046-disclosure-games-peabody-energy-multiple-undisclosed-sec-probes-prairie-state-woes

[39] Michael Marconi, Richard Benson v. Indiana Municipal Power Agency, Inc., Rajeshwar Rao, Sargent and Lundy LLC and Skelley and Loy, Case No: 1:14-CV-07291, Plaintiff Second Amended Complaint.

[40] Matt Bandyk, *Sale of Stake in Prairie State Shows problems with coal plant, group says*, SNL, January 22, 2016.

[41] http://www.peabodyenergy.com/content/162/sec-filings Form 10K-2012, February 25, 2013, p. F-55.

mines at a time of oversupply (and in the case of Wilkie Creek may result in the reopening of a previously closed mine). The price and other market signals identified in this report and by many coal industry leaders point toward the need to close mines.[42]

The Bowie Resource Partners transaction represents a business proposition with an even more troubling basis. The new investor with a new business model will seek to continue mining and selling coal from the mines in New Mexico and Colorado. Blackstone is reported to be financing the transaction which is supposed to buy out Trafigura/Galena's interest in Bowie and finance the purchase of the Peabody mines. Blackstone runs private equity funds and is a stockholder in Peabody.[43] A private equity investment typically requires a rate of return, usually 20% pa. Whatever positive margins remain at the three mines will be used to support private equity debt. Any balance sheet benefit obtained by Bowie Resource Partners from a distressed sales price will be quickly absorbed by the demands of the new capital structure. And yet, the current coal price environment is pushing prices lower making them unsustainable going forward when viewed against current market trends.

Although the Wilkie Creek and Bowie Resources transactions provide short-term cash for Peabody, they essentially will continue to exacerbate the negative effects of an oversupplied market. The investments are high risk because the new business model in the Bowie Resource Partners case is likely to default.

Third, Peabody's sale of its interest in the Prairie State plant now, when the financial problems of the plant have not been solved, represents the abandonment of its corporate responsibility. Peabody Energy Corporation developed the Prairie State coal plant, enlisting 200 municipalities and power authorities in five states to finance and purchase electricity from the plant. The plant moved forward in the 2007-2012 at a time when coal plant cancellations were accelerating. Peabody enjoyed substantial benefit from the project as it sold a mine to Prairie State consortium as well as its services in the development, construction and operation of the Lively Grove mine mouth facility that serves the plant. Its decision to sell its share of the project now for approximately 20% of its previous value raises serious questions for the other owners of the facility.

[42] Taylor Kuykendall, *Coal industry struggling to right size as market shrinks calls for radical change,* SNL, January 28, 2016

[43] Blackstone Alternative Investments is listed as holding 33,067 shares as of September 30, 2015, SNL/Companies and Assets/Peabody Energy Corp./Profile/Institutional Holders/. This from a proprietary database, information available upon request.

Debt Exchange: Inadequate Levels of Principal Reduction Leave Peabody's Financial Condition Driven by Weak Coal prices Subject to Further Slippage

Peabody currently has $6.3 billion in long term debt obligations.[44] Those obligations have been incurred over time and are comprised of several prior bond issuances with varying maturity dates. The restructuring of this debt portfolio is an important focus of Peabody's management.

The company has also announced a debt exchange of its $1.5 billion Senior Note due in November 2018. If the deal is approved, it would result in an agreed reduction in the principal value of debt from $1.5 billion to $730 million,[45] reducing the annual interest payment by an estimated $47 million.[46] The company is also offering the bondholders a 10% equity position in the company.

The exchange is contingent in part on Peabody's ability to sell $500 million in other mining assets by the time the deal closes.[47]

To secure a portion of the debt reissuance Peabody will establish a separate vehicle to hold four mines: Gateway in Illinois, Francisco and Wild Boar in Indiana, and Kayenta in New Mexico. The new vehicle will be restricted in its ability to issue new debt.[48]

These four mines produced an estimated $696 million in revenue in 2014, more than 10% of the company's enterprise-wide revenue. The asset and revenues from these mines appear to be part of the pledges related to Peabody's self-bond reclamation obligations for other mines, as they are part of the "stockholder equity" used to value the company's net worth (see below).

There is a presumption that the new vehicle will protect the assets from Peabody's larger debt problems. But it remains unclear what will happen to these mines in the event of a bankruptcy proceeding: do the mortgages and guarantees ensure the protection of the newly issued bonds or will they be part of the general property of the company covered under a Chapter 11 proceeding?

---

[44] Form 8K-2016 Year End.

[45] http://www.peabodyenergy.com/content/162/sec-filings, Form 8K, January 22, 2016 (Form 8K-2016 Debt) The Company's 8K disclosure assumes the issuance of three instruments all with maturity dates of 2020: 1) $250 million 6% pari parsu bonds; 2) $150 million 6% pari pasu bonds and 3) $330 million in Senior Secured notes, supported by the four mines. The plan also involves an equity position for bondholders equal to 10% of the Issuers value.

[46] http://seekingalpha.com/article/3829266-analyzing-peabody-energys-proposed-debt-exchange

[47] Form 8K-2016 Debt, Peabody Energy Corporation (the "Issuer") Exchange Offer, 6.00% Senior Notes due November 2018, Exhibit 99.1, Exchange Offer, January 8, 2016, P.2.

[48] Form 8K-2016 Debt, Peabody Energy Corporation (the "Issuer") Exchange Offer, 6.00% Senior Notes due November 2018, Exhibit 99.1, Exchange Offer, January 8, 2016, P.4.

Peabody's Debt Exchange Produces Very Little Financial Benefit and Its Collateral Claims are Based on Overly Optimistic Value Assumptions

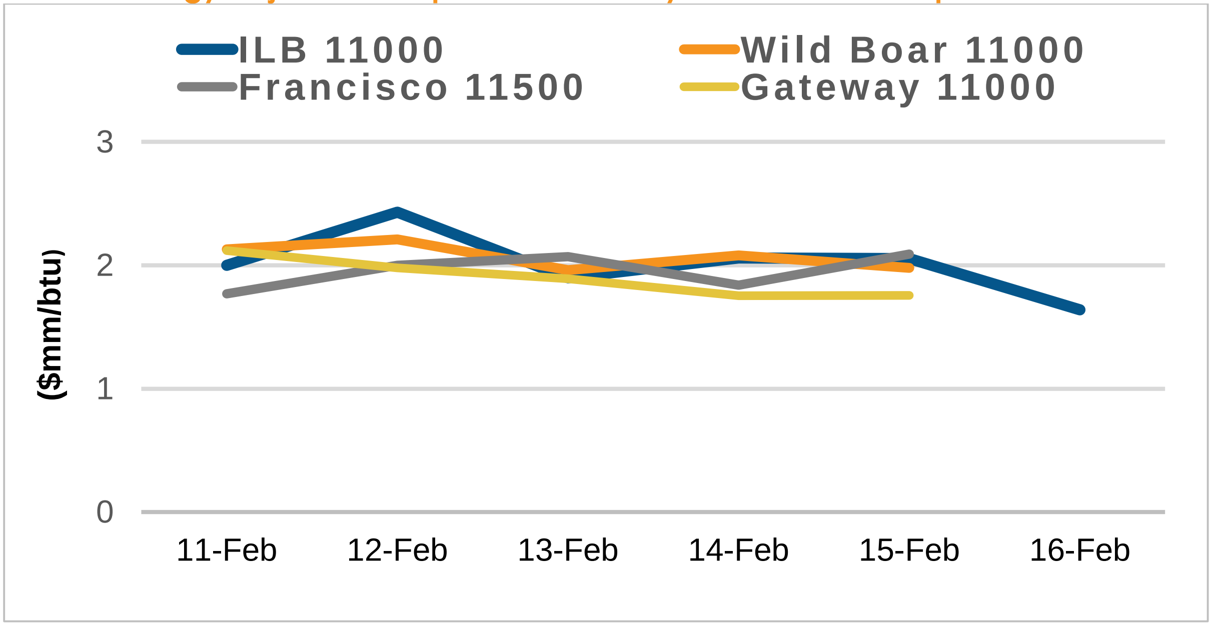
After the transaction, Peabody will still not be able to cover the cost of operations and the new debt load. Simply stated: the company declared losses of $768 million in 2015 (minus losses from impairments). The 2015 interest payment was $465 million. An estimated $47 million in interest payment leaves the company on an enterprise level with operating losses after interest payments of approximately $600 million (see Table 1).

Put another way, Peabody's 2015 interest payments of $465 million constituted 8.27% of the company's enterprise-wide revenues. Using 2015 data, this number increases slightly after the debt swap, with the company still paying 8.5% of revenues for interest (assuming the four mines are no longer considered part of Peabody's enterprise-wide balance sheet). This analysis is based on an assumption about the accounting treatment of the new vehicle used by Peabody and the strength of the protections offered in the debt exchange documents.

Peabody's Financial Profile of the Four Mines Ignores the Downward Spiral of Coal Prices

Peabody's financial disclosures on the mines present a partial and overly optimistic picture of the financial condition of these mines. First, the disclosure is based only on historical data for the last five years. The company is requesting that investors consider these mines as solvent operations going forward. However, Peabody offers no indication of any of its forward-looking assumptions regarding these mines, particularly the price of coal.

Table 6: Energy Adjusted Comparison: Peabody ILB Mines vs. ILB Spot Prices 2011-2016



The three ILB mines (Francisco, Wild Boar and Gateway) have coal prices[49] (a mix of contract and spot prices) that cluster around the historic spot prices In the ILB (see Table 6). ILB prices have declined substantially over the last four years and dropped significantly during 2015 (See Table 7: Illinois Basin Coal Prices 2005 to Present). For example the spot prices of ILB 11800, 11500 and 11000 were $55.90, $65.45 and 53.40 per ton in February 2012[50]. At the beginning of February 2016 the same coal per ton spot price dropped to $36.14, 40.40 and $30.00 per ton respectively[51]. In addition, from February 2015 to February 2016 the ILB 11800 spot price dropped from $60.39 per ton to $40.40 per ton, a 30% decline.

Although the Peabody 8K disclosure on the debt exchange was issued on January 22, 2016, [52] it contained only production and prices through the third quarter of 2015. SNL Energy reports an overall decline in ILB production in 2015 of 10%.[53] All three of the Peabody mines reported weak fourth quarter production results.[54] Table 7 shows a precipitous price drop in the third and fourth quarter of 2015. The risk of per ton mine prices at Gateway, Francisco and Wild Boar declining is high. Peabody offers no short, medium or long term price forecast in its 8K overview disclosure on the future financial condition of the mines.[55]

---

[49] Form 8K-2016 Debt, Peabody Energy, Overview of Selected Assets, January 22, 2016. A five year coal price disclosure is provided for each mine identified as part of the company's new special vehicle.

[50] SNL, Markets and Deals/Coal Summary/ Physical Markets Survey/Region. This is a proprietary database. Information available upon request. See also Appendix I. (SNL Physical Markets)

[51] Platts Coal Trader, Weekly Survey,. Traditional Physical Market. January 29, 2016

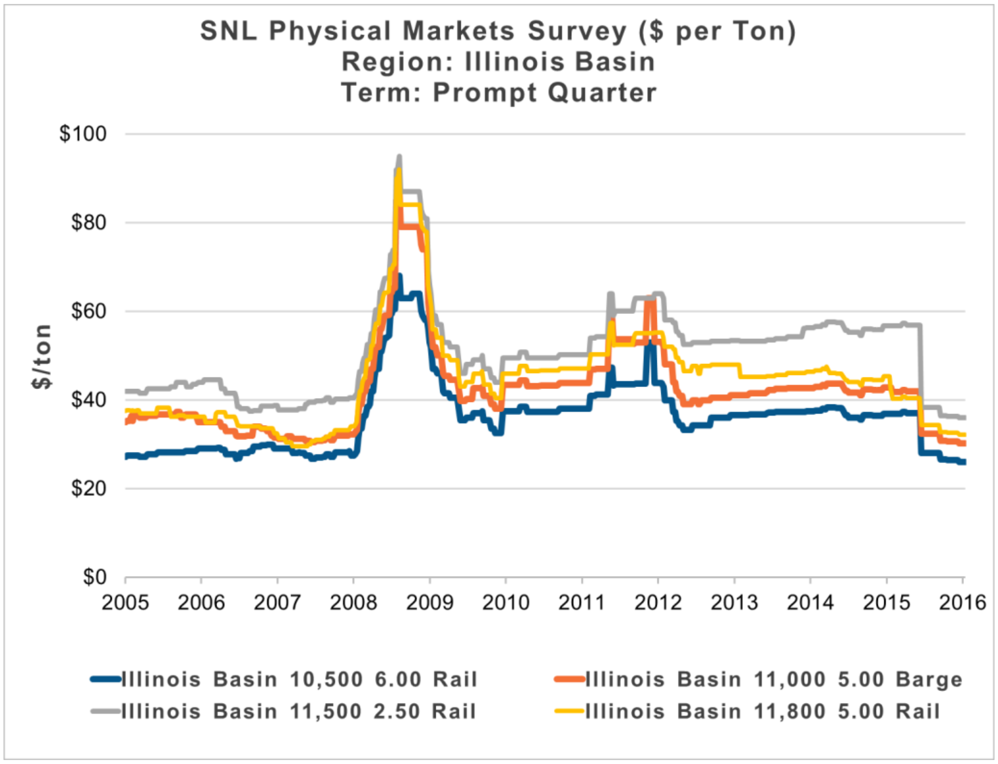
[52] http://www.peabodyenergy.com/content/162/sec-filings, Form 8K-2016 Debt.

[53] Steve Piper, *With weaker market gas premium was eliminated, coal displacement remains*, SNL, February 2, 2016

[54] Christopher Coats*, Production slips at Peabody's U.S. mines in latest quarter after uptick in Q 3 15*, SNL, January 26, 2016.

[55] Since Peabody is addressing the forward value of these mines to serve as collateral for securing mortgages, the revenue to expense calculation is critical. The revenue dynamics in the Illinois Basin have deteriorated rapidly in the last eight months. This is likely to affect future valuations. One does not expect from Peabody a full valuation of these mines as part of the 8K filing, but the basic outlines of future value would include at minimum future price assumptions. See for example, http://www.bvresources.com/pdfs/WB061313/BVR%20-%20Quarries%20&%20Mines.pdf

Table 7: Illinois Basin Coal Prices 2005 to Present



Peabody discloses that the fourth mine in the debt swap transaction -- the Kayenta mine in Arizona, a mine mouth facility that serves the Navajo Generating Station -- receives $43.63 per ton for its coal. This means that this Arizona mine is some of the most expensive coal in the nation, charging an energy-adjusted price that exceeds the spot price in almost every region of the country.

Table 8: EIA Spot Prices week of January 22, 2016 versus Peabody's Kayenta Coal Mine

Region	Per Ton Price ($)	Energy Adjusted ($mmbtu)
CAPP	42.25	1.69
NAPP	48.60	1.87
Illinois Basin	40.0	1.79
PRB	9.70	0.55
Uinta Basin	39.05	1.67
Kayenta[56]	43.63	2.0

Peabody does not offer a forward looking price scenario for the Kayenta mine in the Form-8K Overview. The ownership structure for the Navajo Generating Station, the one plant served by the Kayenta mine, consists of Tucson Electric Power, Salt River Project, Los Angeles Department

[56] Although Peabody's Form 8K-2016 Debt filing lists the per ton cost at $43.63, SNL's data base of Fuel Contract Details for 2015 lists the average price of the year at $45.10 per ton. (SNL, Company and Assets/Navajo Generating Station/Analytics/Fuel Contract Details, 2015, proprietary database information.)

of Water, Nevada Power and the Bureau of Reclamation. In a time of declining coal prices, how much longer will the five owners of the plant be willing to pay $43.63 per ton for coal from a mine mouth facility?

U.S. coal companies, including Peabody, have infrequently released their forward looking coal price forecasts. When coal prices are rising and margins are ample this limitation on coal company transparency receives little attention. During this time of severe financial pressures, however, coal companies could better serve investors, the bankruptcy process, the market and their own interests by providing a more robust picture of their forward looking coal prices and the implications for economically recoverable coal that flows from these disclosures.[57]

Peabody's Weakened Financial Condition Places its Self-Bonding Program at Risk

Peabody Energy Corporation carries $1.3 billion[58] in reclamation obligations. These obligations cover its self-bonding commitments in Colorado, New Mexico, Wyoming, Illinois and Indiana.

Self-bonding is the method used by some coal companies to comply with requirements under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The act requires coal companies to post bonds sufficient to cover the cost of reclaiming the site. The bond insures that the site will be reclaimed and restored at the cessation of mining activities even if the company goes out of business or fails to fulfill its obligations. The bond is released by the federal government once the site is fully reclaimed.

The law contemplates that coal companies will obtain surety bonds or post other third party commitments for each mine. The law also allows for self-bonding by a coal company. This method effectively pledges company assets as a form of collateral in lieu of the bonds. This allows coal companies to avoid premium payments on the third party insured bonds. The bond premium savings is typically in the millions of dollars per mine.

Coal companies can qualify for self-bonding if they meet certain tests of financial solvency. The companies make application under the federal law to administrators of the program in designated state agencies. The mine applicant is usually a subsidiary corporation of a larger parent company (i.e. Peabody, Arch and Alpha Natural Resources). The subsidiary must show that it has access to unencumbered assets sufficient to cover the self-bonding obligation. The applicant must show as part of its filing that the parent company has a liabilities to net worth ratio of less than 2.5. States vary somewhat in methodological determinations of what are total liabilities and what constitutes net worth. When coal prices are high, the value of company reserves and equities are rising, and debt levels are manageable, most companies can easily meet these solvency tests.

[57] http://powersource.post-gazette.com/powersource/companies/2015/10/18/Coal-reserves-Unmined-or-unminable/stories/201510180092

[58] http://www.peabodyenergy.com/content/162/sec-filings , Form 10K, February 25, 2015. F-64.

Our review of the information found in Peabody Energy Company's filings with the SEC shows that Peabody Energy Corporation and its various subsidiaries would fail to meet this basic self-bonding test of financial solvency. [59]

According to Peabody's 2015 end of year filing, the company ratio of total liabilities to net worth is 12.6 -far in excess of the 2.5 benchmark required under federal statute.

Table 9: Peabody Energy Total Liabilities to Net Worth[60] at End of 2015

	Value ($ billions)
Total Liabilities	10.972
Net Worth	.869
Ratio	**12.6**
Standard	**<2.5**

In order to achieve "technical" compliance with SMCRA self-bonding rules, Peabody, like most other coal companies created a network of subsidiaries that allow for "technical" compliance through the use of various accounting treatments involving a network of subsidiaries. Peabody Energy Corporation has created a parent company for its mining subsidiary that appears relatively free of liabilities and therefore in compliance with SMCRA rules.

For example, in New Mexico, where Peabody has millions in current SMCRA self-bonding obligations, the company has historically[61] used interlocking corporate networks to meet the financial tests. Peabody Investments Corp. (PIC)[62] is deemed the parent company for the purpose of the self-bonding application and has a separate accounting statement from that of Peabody Energy Corporation.

[59] This is also the conclusion of an earlier report by the Western Organization of Resources Council http://www.underminedpromise.org/UnderminedPromiseII.pdf
[60] Form 8K-2016 Year End.
[61] The following illustration is drawn from information provided by the New Mexico (agency name). We reference here a letter and attachments from Stuart Butzler of the law offices of Modrall Sperling representing Peabody Energy and James O'Hara, Coal Program Manager, Mining and Minerals Division, February 18, 2011.
[62] PIC is deemed the parent applicant for the New Mexico filing. PIC is a subsidiary of the parent corporation Peabody Energy for purposes of the 10K Filing with the Securities and Exchange Commission. http://www.peabodyenergy.com/content/162/sec-filings, Form 10K, February 25, 2015, Peabody Energy Corporation List of Subsidiaries, Exhibit 21, p. 4. PIC is identified as a wholly owned subsidiary of Peabody Energy Corporation in Ernst and Young, Consolidated Financial Statements, Peabody Investments Corporation and Subsidiaries Year Ended December 31, 2010 and attached to the Butzler letter.

Table 10 : Comparison of Selected Peabody Investment Corporation and Peabody Energy Corporation Asset and Liability Accounting from Consolidated Balance Sheets, December 2010.

	Peabody Investments 12/10 ($ billions)[63]	Peabody Energy Corp. 12/31/10[64]
Assets		
Land and coal interests	7.657	7.657
Buildings and Improvements	1.079	1.079
Machinery	1.699	1.699
Depreciation	(3010)	(3010)
Total Property, Plant & Equip	7426	7426
Liabilities		
Total Current Liabilities	1441.3	1513.7
Long term debt	97.3	2706.8
Deferred Income	451.1	539.8
Asset Retirement Obligations	501.3	501.3
Accrued postretirement costs	963.9	963.9
Other noncurrent liabilities	437.7	448.3
Total Liabilities	3892.6	6673.8
Stockholder Equity	8620.5	4689.3

The applicant, a subsidiary of PIC, is New Mexico Coal Resources (NMCR). NMCR uses the PIC balance sheet as the basis for demonstrating compliance with SMCRA rules. NMCR's representation is that PIC, as its parent, meets the criteria for eligibility for self-bonding. PIC would therefore possess the assets and liquidity necessary to finance reclamation activities at the cessation of mining if NMCR is unable to pay for it themselves.

Program Rules, Weak Self-Bonding Administration by States and Accounting Treatments Obscure PEC's Failure to Meet the Financial Solvency Test for Self-Bonding

The use of PIC as the substitute parent for Peabody Energy Corporation allows for an accounting treatment that significantly decreases the Long Term debt liability for PIC and increases the stockholder equity accounting when compared to Peabody Energy Corporation. PIC is also allowed under this accounting treatment to claim as part of its

63 Ernst and Young, Consolidated Financial Statements, Peabody Investments Corporation and Subsidiaries Year Ended December 31, 2010, p. 2.

64 http://www.peabodyenergy.com/content/162/sec-filings, Form 10K, February 28, 2011, Consolidated Balance Sheets, p. F-3.

valuation the full enterprise value of Peabody's mines, domestic and foreign. In short the PIC corporate balance sheet takes full advantage of Peabody Energy's assets but is, through an accounting treatment allowed to allocate only a small portion of the total liabilities of Peabody Energy.

Program rules appear to allow for a definition of the parent and subsidiary relationship for the purposes of the self-bonding applications that is materially different from that used in federal SEC filings or under GAAP relating to group consolidation. Under those filings Peabody Energy Corporation is the parent company and PIC and NMCR are both considered subsidiaries.

In 2010, under either the PIC or PEC accounting, the parent would have complied with self-bonding rules. As noted in Table 9: Peabody Energy Total Liabilities to Net Worth[65] at End of 2015, however,

The NMCR application would not meet eligibility requirements under current financial conditions using Peabody Energy Corporation as the true parent.

It is also important to note that whatever net worth Peabody Energy Corporation may have in 2016 it has been pledged that value to its bondholders. A review of Peabody Energy's financial filings indicates that generally and specifically the company has pledged its mining assets to its creditors.

Much of Peabody's debt is governed by a multi-party agreement (Credit Facility) established in 2013 and amended in February 2015. As described in the company's filing under the Credit Facility "The Company and substantially all of its domestic subsidiaries"[66] secure the indebtedness. In the section of the filing that describes the Senior Secured Notes the company discloses that the notes are "Jointly and severally guaranteed by nearly all of the Company's domestic subsidiaries."[67]

In addition to this general assignment of the value of the assets of Peabody Energy Corporation and its subsidiaries to its bondholders, in 2015, as part of the amendment to the Credit Facility, the company issued mortgages to its creditors for the following mines in order to specifically secure more liberalized credit terms for Peabody Energy going forward.

Table 11: Mines Mortgaged by Peabody to its Creditors in 2015 Credit Facility Amendment

Mine	State	2014 Coal Production (million tons)
North Antelope Rochelle	Wyoming	118.0
Caballo	Wyoming	8.0
Rawhide	Wyoming	15.0
Lee Ranch	New Mexico	0.3
El Segundo	New Mexico	8.2
Kayenta	Arizona	8.2
Bear Run	Indiana	8.6
Total Coal Production		166.3
Total Peabody Domestic		185.0
Percent Mortgaged		90%

65 Form 8K-2016 Year End.
66 http://www.peabodyenergy.com/content/162/sec-filings, Form 10K, February 25, 2015, Long Term Debt, p. F-38.
67 http://www.peabodyenergy.com/content/162/sec-filings, Form 10K, February 25, 2015, Long Term Debt, p. F-40.

Peabody Energy has issued mortgages to its creditors securing the assets of 90% of its annual U.S. domestic coal production. It also has outstanding self-bonding pledges in several states of $1.3 billion. These double pledges appear to be in direct conflict with one another. If regulators were to look to the actual value of the assets, along with how the company has pledged its assets and how it has attributed full assets and liabilities to Peabody Energy Corporation (the corporate parent in SEC filings), none of the self-bonding mining applications could be deemed as acceptable. The judgments made by this type of clear-eyed regulatory assessment would be the same as that rendered by the market: Peabody Energy Corporation is nearly bankrupt. While perhaps legal, these arrangements are an abuse of SMCRA.

The current financial climate for the coal industry raises numerous issues concerning the ongoing management of the companies that comprise it.[68] On the issue of self-bonding, the historically valid net worth tests offered by coal companies, including Peabody, are now worthless. In the current spate of very real, and increasingly likely instances of bankruptcy, coal companies will seek to reduce or eliminate the bonding requirements and eviscerate this environmental protection for the public and fiscal protection for the state and federal government. The State of Wyoming recently granted substantial financial relief to Alpha Natural Resources on its $400 million reclamation obligation allowing it to post a minimum cash offering driven in part by the company's declaration of bankruptcy.[69] Arch Coal has similar relief from its obligation after it filed for bankruptcy.

Several recent developments indicate that Peabody's self-bonding mechanisms may be in jeopardy:

- In June 2015 Thomson Reuters reported that federal officials were examining Peabody Energy and other coal companies to determine if the companies were still eligible for self-bonding.[70] Since then federal officials have issued follow up notices to the State of Wyoming. Environmental protection administrators in the state approved Alpha Natural Resources and Arch's self-bonding applications despite obvious severe financial distress and Chapter 11 bankruptcy filings.[71]
- The State of Colorado has announced that it is moving away from self-bonding because the practice is too risky.[72] The decision came in response to questions being raised concerning Peabody Energy's sale of the Twentymile mine to Bowie Resources (discussed above). Bowie has applied to the State of Colorado for self-bonding.
- Recently the Environmental Law and Policy Center (ELPC), an Illinois based organization, has raised questions with Illinois environmental regulators responsible for Peabody's self-bonding applications in the state.[73] Questions have also been raised by IEEFA about Peabody's mine sales to Bowie Resources in New Mexico.[74]

---

[68] For a concise treatment of the financial problems of the coal industry see: McKinsey and Company, *Downsizing the U.S. coal industry: Can a slow motion train wreck be avoided*, November 2015.
[69] http://www.platts.com/latest-news/coal/houston/alpha-wyoming-reach-deal-to-resolve-prb-coal-21102521
[70] http://www.reuters.com/article/us-usa-coal-bonding-idUSKBN0OK26F20150604
[71] http://www.houstonchronicle.com/business/energy/article/Feds-give-Wyoming-more-time-on-coal-mine-bonding-6804764.php
[72] http://wyomingpublicmedia.org/post/co-moves-away-self-bonding
[73] http://www.chicagobusiness.com/article/20160130/ISSUE01/301309995/peabody-energy-failure-could-leave-state-without-coal-mine-cleanup
[74] http://www.santafenewmexican.com/opinion/my_view/reader-view-n-m-taxpayers-at-risk-in-peabody-bowie/article_cce75802-93c0-5b52-874c-129842daec98.html

Conclusion

Peabody Energy is failing to address the fundamental point of this depressed market. If coal prices have any chance of turning around, the company must use the primary tool it has in its control: closing mines to drive down the supply of coal commensurate with market demand. Instead, Peabody is trying to manage its debt problems by selling mines for cash to competitors who will then further flood an already oversupplied market. Peabody's debt management plans – asset sales, debt exchange and self-bonding cost control – will be insufficient even if they are successful.

Until Peabody Energy acknowledges the price decline, establishes an action strategy to address the difficult financial situation this creates, and acts on it, its financial condition will continue to slip.

Institute for Energy Economics and Financial Analysis

The Institute for Energy Economics and Financial Analysis (IEEFA) conducts research and analyses on financial and economic issues related to energy and the environment. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy and to reduce dependence on coal and other non-renewable energy resources. More can be found at www.ieefa.org

About the Authors

Tom Sanzillo, Director of Finance, IEEFA

Tom Sanzillo is the author of several studies on coal plants, rate impacts, credit analyses, and public and private financial structures for the coal industry. He has testified as an expert witness, taught energy-industry finance training sessions, and is quoted frequently by the media. Sanzillo has 17 years of experience with the City and the State of New York in various senior financial and policy management positions. He is a former first deputy comptroller for the State of New York, where he oversaw the finances of 1,300 units of local government, the annual management of 44,000 government contracts, and where he had oversight of over $200 billion in state and local municipal bond programs and a $156 billion pension fund.

Sanzillo recently contributed a chapter to the Oxford Handbook of New York State Government and Politics on the New York State Comptroller's Office.

Tim Buckley, Director of Energy Finance Studies, Australasia

Tim Buckley has 25 years of financial market experience covering the Australian, Asian and global equity markets from both a buy and sell side perspective. Tim was a top rated Equity Research Analyst and has covered most sectors of the Australian economy. Tim was a Managing Director, Head of Equity Research at Citigroup for many years, as well as co-Managing Director of Arkx Investment Management P/L, a global listed clean energy investment company that was jointly owned by management and Westpac Banking Group.

Clark Williams-Derry, Senior Researcher, Sightline Institute

Clark Wiliams-Derry directs research and communications programs for the Sightline Institute, based in Seattle. Williams-Derry's work covers a wide range of topics, including climate and energy policy sustainable transportation, and mapping and analyzing urban sprawl. He is a speaker, writer, consultant, and media spokesperson on sustainability topics. He graduated from Yale University in1989 with a joint degree in mathematics and philosophy.