Coal Market Report

Risks to US coal mining and export proposals

April 2015

This Coal Market Update summarizes general developments in the last financial quarter that raise the risk of investing in the US coal industry. Specific company risks can be found in the Appendix following the report. All prices are in USD unless otherwise noted. The information in the report is not financial advice, investment advice, trading advice or any other advice.

Greenpeace USA, Sightline Institute, Climate Solutions, and Sierra Club contributed to this report.

Summary:

The US coal industry is facing structural decline and companies pursuing coal export proposals in the Pacific Northwest (PNW) are particularly at risk. This update highlights execution risks for PNW export projects, global coal market conditions, and additional policy changes that may impact future coal infrastructure projects.

Companies mentioned include:

Arch Coal, Inc. (NYSE: ACI)

Peabody Energy Corporation (NYSE: BTU)

Cloud Peak Energy, Inc. (NYSE: CLD)

I: EXECUTION RISKS

Regulatory Risks

Morrow Pacific Project – Coyote Island Terminal (Two-part project: train to barge at the Port of Morrow in Boardman, then barge to ocean vessels at Port of St Helens/Port Westward, Oregon):

On March 31, 2015, the Oregon Department of Environmental Quality announced the conditional approval of the 401 Water Quality Certification for Ambre Energy's (now Lighthouse Resources Inc.) Port of Morrow coal export proposal. However, the certification's validity is conditioned on the approval of the Department of State Lands (DSL) removal-fill permit and the US Army Corps of Engineers' Section 404 Rivers and Harbors Act permit. The DSL removal-fill permit was denied, and is currently under appeal (see below for additional details). The Army Corps announced they would postpone their Environmental Assessment under NEPA in September 2014 indefinitely due to the uncertainty of the DSL permit status.

On March 19, 2015, the Oregon Transportation Commission (OTC) voted again to deny a grant for Connect Oregon funds for Ambre Energy's (Lighthouse Resources Inc.) proposal at Port Westward/Port of St Helens. The grant would have provided $2 million in public funds for the construction of a new dock. The OTC received 8,000 public petitions opposing the grant and a letter from nearly 40 local elected officials.

Gateway Pacific Terminal at Cherry Point, near Bellingham, WA (SSA Marine, Peabody Energy): On January 5, 2015, the Lummi Nation sent a letter to the US Army Corps of Engineers requesting that the Army Corps halt all permitting because the coal export terminal would violate their treaty rights and cause harm that could not be mitigated. On February 3, the Army Corps sent a letter requesting more information from the Tribe. On March 5, the Lummi Nation replied to the Army Corps providing more information on the impacts to their treaty rights. There will be further communication with SSA Marine and the Army Corps as they continue to weigh this decision, anticipated sometime mid-year. The Army has indicated that this process with the Tribe is parallel to the process preparing the Draft Environmental Impact Statement (DEIS). In a separate development on March 19, the DEIS for Cherry Point was announced to be delayed at least another year. (See below for additional details on DEIS delay at Gateway Pacific Terminal.)

Legal Risks

Coal-hauler BNSF continues to face litigation under the Clean Water Act alleging a long history of violating the Act's provisions, which plainly states that dumping of any kind into a US waterway without what is known as a National Pollutant Discharge Elimination System (NPDES) permit, is a violation of federal law. Each violation of the Clean Water Act carries a fine up to $37,500, and the plaintiffs assert that every rail car that loses coal during travel from mine to port is considered a unique violation – a hefty number considering two to four trains loaded with coal, each 120 cars or more, currently travel through the region every day. The number of trains traveling through the Northwest (and the associated illegal discharge of coal to waters) will increase dramatically if the proposed export terminals are constructed. The lawsuit was filed on June 5, 2013. Plaintiffs defeated 2 BNSF motions to dismiss, one each in the Eastern and Western Districts of Washington in 2014. The cases have now been consolidated in the Western District.

On August 18, 2014, the Oregon Department of State Lands (DSL) denied a removal-fill permit for the project. Ambre Energy (Lighthouse Resources Inc.), the Port of Morrow, and the State of Wyoming appealed this permit decision. The appeal process could take over two years to resolve. Those who have party status intervening in the appeal process are currently undergoing discovery in the administrative law proceeding. The Warm Springs, Nez Perce, and Umatilla Tribes have requested to join the case in opposition to the coal export proposal.

Political Risks

DEIS Delay at Gateway Pacific: The Draft Environmental Impact Statement (DEIS) for the Gateway Pacific Terminal (GPT) appears to have been delayed approximately one additional year. The delay appears to be due, in large part, to the unwillingness of Burlington Northern Santa Fe to share requested studies and information coal dust, diesel emissions and other small particulates that may be generated from rail train traffic. The article quotes from the public record:

> Writing last month to agencies involved in the environmental review, Jennifer Young, a project supervisor for the CH2M-Hill consulting firm, said, "The EIS schedule has been delayed by approximately one year from the original contract assumptions as a result of the delay in receiving studies, information and essential criteria from the applicant. The rail modeling effort was more extensive than previously anticipated due to the need to develop assumptions for information not available from BNSF." CH2M-Hill is acting as the manager of the overall EIS process.

The Washington State Department of Ecology (one of the three lead agencies for the environmental review process) had previously estimated that the DEIS would be released for public comment in late 2015. This delay will likely push DEIS release into late 2016. No project permits may be issued until the Final EIS is completed, a lengthy process including public comment and agency response to comments. Terminal construction may therefore be pushed back to 2020 at the earliest, even if GPT successfully overcomes the many permitting and litigation challenges.

Although this delay only has been confirmed for the GPT project, it is likely that a similar delay will affect the other large coal export proposal in Washington: the Millennium Bulk Terminals Longview project. The scope for the EISs are very similar and, in both cases, Washington State Department of Ecology required the reviews to include an analysis of small particulate emissions from the coal train traffic. This would mean that the Millennium DEIS schedule is also pushed back into late 2016, and would involve similar delays regarding the best-case dates for construction and first shipments.

Safe Energy Leadership Alliance: One of the biggest political developments in recent months related to these issues has been the growth of a coordinated effort by state and local elected officials in the region to increase scrutiny and regulatory attention relating to the risks and potential health, safety, environmental and economic impacts relating to coal and oil rail traffic through their communities. An organization known as the Safe Energy Leadership Alliance (SELA) now counts over 100 members and is chaired by Dow Constantine, the Executive of King County, the region's most populous county.

SELA has created a platform for coordinated advocacy regarding the coal and oil terminal proposals, actively advocating for a detailed environmental impact statement relating to the proposed coal terminals, and seeks an evaluation of the cumulative impacts of the coal and oil proposals. This coalition has already played a key role in recently introduced oil train safety regulation in both the US Senate and the Washington legislature and has led efforts to increase federal oversight on rail safety and environmental issues. SELA is likely to be very influential in the environmental review and subsequent decision-making for the remaining coal export terminals.

II. MARKET RISKS

Global Markets

In 2010 and 2011 coal export terminals in the Pacific Northwest looked like guaranteed money-makers. At the time, the global coal market was booming: China's coal imports were soaring, and seaborne coal prices were near all-time highs.

But over the past 4 years the economic case for US coal exports has steadily collapsed, as a host of independent factors have made Asian coal market increasingly inhospitable to US exports.

- **Coal prices are at multi-year lows.** Prices on the Pacific Rim coal market have fallen back to levels comparable to those seen at the depths of the global recession.
- **The futures market predict no price rebound.** Coal futures prices for Pacific Rim seaborne coal (Newcastle benchmark) remain below $60 per ton through 2021.
- **Chinese coal demand is shrinking.** Five years ago, market analysts believed that China's boundless coal demand would buoy coal prices for decades. But Chinese policymakers, increasingly concerned about air pollution and industrial overproduction, have enacted a variety of policies to curb coal consumption – from coal import tariffs, to provincial coal reduction targets, to a nascent cap-and-trade system. Those policies they appear to be working: total coal consumption in China fell nearly three percent in 2014 compared to the prior year, and first quarter results from 2015 suggest a year-over-year sales decline of nearly 5 percent. Coal consumption in electric power plants fell 10 percent year-over-year in the first quarter of 2015.
- **Chinese coal imports are plummeting.** A large share of the decline in China's coal consumption comes from falling imports: total coal imports into the country fell 41.5 percent, year-over-year, in the first quarter of 2015. That's roughly equal to all of South Korea's coal demand, simply disappearing from Asian seaborne coal market.
- **Key Asian tariffs tilt against US coal.** China's 6 percent coal tariff applies to US coal, but exempts Indonesia, with whom China has a free-trade agreement. Similarly, South Korea's coal tax falls heavily on the low-energy coal produced in the US – particularly the low-cost, high-volume coal from the Southern Powder River Basin in Wyoming. These fees create additional stresses for US exporters – who already face daunting transportation economics in getting their low-value products overseas.

- **A strong dollar hurts US exporters, but bolsters competitors.** Long-term declines in the Indonesian rupiah, the Australian dollar, and the Russian ruble have bolstered the competitive financial position of key US coal export competitors.

- **Key US coal exporters are losing money on exports.** Coal exporter Cloud Peak Energy – the Powder River Basin producer best situated to benefit from the coal trade – recently announced that it expected its export division to suffer $35 million in export losses in 2015. Last year, the company's CEO said that it needs to see Newcastle prices in the $80-90/ton range to break even on exports. The combination of weak demand, oversupply, unfavorable policies, and a strong dollar have made it virtually impossible for US thermal coal producers to compete in Asian markets.

Finance Risks

In early March, lenders forced Peabody Energy to change the terms on its proposed second-lien notes, capping the borrowing limit at $500 million, with an additional $500 million conditional on the company raising $250 million in equity. Lenders also requested a higher, 10.5 percent interest rate on the debt, reflecting Peabody's high credit risk. Bloomberg also reported that Murray Energy has struggled to sell $1.55 billion in bonds needed to acquire Foresight Energy LP, with investors demanding higher yields than the 10.25 to 11 percent originally offered.

The severe economic challenges faced by the two companies backing the Millennium Bulk Terminals Longview proposal, Arch Coal and Ambre Energy (Lighthouse Resources Inc.) raise serious questions regarding how the companies hope to finance the significant capital expenditures that will be required. The two companies' combined net worth is currently less than half the estimated capital costs for the project.

III. FEDERAL POLICY RISKS

Federal Government Seeks to Close Coal Export Royalty Loophole:

Earlier this year, the Office of Natural Resource Revenue (ONRR) proposed a new rule that seeks to close a loophole long exploited by the coal industry. The new rule would determine a royalty based on the first arm's-length sale of federal coal, predominantly mined in the Powder River Basin. Currently, coal producers can avoid paying higher export royalties by first selling mined coal to affiliated brokers before the coal is shipped overseas.

For those coal companies seeking to ramp up coal exports in the near future, this rule has serious impacts. Jason Begger, Cloud Peak's government affairs manager, said, "[t]he fact of the matter is if this thing goes through, it is going to completely cut the legs out from underneath us."

The public comment period ends May 8, 2015.

Department of Interior raises questions about climate impacts of federal coal program:

On March 17, 2015, in a speech to the Center for Strategic and International Studies, Interior Secretary Sally Jewell called for an "honest and open conversation about modernizing the federal coal program," and asked, "[h]ow do we manage the program in a way that is consistent with our climate change objectives?" The Department of Interior (DOI) manages over 500 million acres of federal land. Mining and coal production on public lands make up 42.1% of total US coal production.

In a leaked internal memo sent to Bureau of Land Management (BLM) field offices in early April, Ed Roberson, BLM's assistant director of resources and planning, indicated that new, comprehensive guidance on calculating the climate impacts and social cost of carbon associated with the leasing of federal minerals is expected in the coming months. The memo suggests that BLM Washington Office will play a heavier role in guiding field offices around carbon costs and climate issues in the future. Currently, very few BLM field offices factor in climate impacts or social cost of carbon metric in the evaluation and review of federal leases. This memo, coupled with recent comments from the Department of Interior, indicate a new commitment from federal agencies to seriously consider climate risks in the federal coal leasing program.

Appendix: Company profiles

Cloud Peak Energy faces significant ongoing financial risks from its coal export strategy.

Cloud Peak has locked itself into long-term contracts with port and rail companies to export up to 6.5 millions of tons of coal per year, and faces stiff financial penalties if it reneges on those commitments. To avoid these penalties, the company has been exporting coal from its Spring Creek mine at a modest loss since the third quarter of 2013. But Cloud Peak expects their Asian export losses to deepen, and recently announced that it expects its export arm to lose roughly $35 million in losses this year alone. Worse, the futures market predicts no price rebound through 2021 – -suggesting that the company may face even steeper export losses in 2016 and beyond.

Arch struggles to permit new mine and infrastructure, withdraws pending expansion.

- **Otter Creek project:** The permitting process for the Otter Creek mine was set back by the March 19, 2015, issuance of a 65-page deficiency letter by Montana regulators. Another year of fieldwork and data collection may be needed before Arch-affiliate Otter Creek Coal, LLC can submit its full response to regulators' substantive concerns, delaying the project further.

- **Tongue River Railroad:** The proposed Otter Creek project requires the construction of a new railroad line, the Tongue River Railroad, to move coal to market. The railroad is considered by the federal Surface Transportation Board (STB), and its permitting process is bifurcated into 1) environmental review and 2) transportation merits. On the environmental review, the Draft Environmental Impact Statement for the railroad was released for public comment on April 17, 2015, with a comment period closing on June 23, 2015. On the transportation merits, the STB conditions its approval on the financial ability of proponents to construct the railroad and the existence of a market for the product. In an extraordinary move, STB granted extensive discovery to a nonprofit citizens group disputing these two conditions, allowing the group's counsel to review Arch- and BNSF-affiliate Tongue River Railroad Company's internal financials as well as Arch Coal's internal marketing projections for Otter Creek coal. Documents reviewed in discovery reveal that "[m]arkets forces are not coalescing around this project and TRRC's owners are not prepared to dedicate significant resources to the TRR and Otter Creek." (Redacted comments not publicly available.)

- **Lease withdrawal:** Arch withdrew a federal coal lease application for the West Jacobs Ranch tract adjacent to its Black Thunder complex on January 7, 2015, citing its commitment to a "prudent capital allocation strategy." The tract would have added an additional 957 million tons of coal, effectively doubling mineable reserves at Black Thunder.

- **Colorado Roadless Rule:** The US Forest Service proposed reinstatement of a loophole in Colorado's Roadless Rule that would allow significant road-building and drill pad clearing to support coal mining in western Colorado, potentially paving the way for an expansion to Arch's West Elk mine. Arch first sought an expansion into roadless lands in 2010, but that expansion was blocked in 2013 by a lawsuit filed by several environmental groups. The loophole was then thrown out by a federal court in 2014 because the Forest Service failed to account for climate impacts of coal mining and coal combustion. In early April 2015, the Forest Service said it would consider reinstating the loophole, but that process will take at least a year to complete. The process includes the Forest Service's preparation of a draft and final environmental impact statement and multiple opportunities for public comment. If the Forest Service ultimately decides to re-adopt the loophole, that decision could be subject to additional litigation. Even if the loophole is reinstated, Arch will also have to obtain Forest Service approval for two other decisions – a lease expansion and coal exploration permit – both of which were also thrown out by a court in 2014. No mining can begin until the State of Colorado and Secretary of Interior approved a mining plan, processes that are likely to take additional months to complete.

Upcoming Quarterly Investor Calls

ACI – Tuesday, April 21 at 10:00 a.m. EDT | Announcement

BTU – Thursday, April 23 at 10:00 a.m. CDT | Announcement

CLD – April 30, 2015 at 5:00 p.m. EDT | Announcement