



NTEC Move to Buy Cloud Peak Mines Is an Increasingly Questionable Wager

As U.S. Coal Production Continues Its Decline and the Export Outlook Dims, Powder River Basin Assets Face a Host of New Problems

Introduction

A proposal by Navajo Transitional Energy Company (NTEC) to acquire three Powder River Basin (PRB) coal mines in Montana and Wyoming owned by bankrupt Cloud Peak Energy appears increasingly risky. The deal, cloaked in secrecy to begin with, potentially puts hundreds of millions of tribal dollars at peril. Market events, in the meantime, are making the acquisition even less viable.

The main risks associated with the Cloud Peak assets can be broken out into three broad categories:

- **Macroeconomic.** Energy sector trends continue to move away from coal for electricity generation, which threatens the economics of almost all the coal produced in the PRB.
- **Regional.** The macro trends are creating significant financial stress for coal companies in the region try to remain competitive, forcing even the two largest PRB miners into a joint venture to cut costs and retain market share.
- **Mine by mine.** Production at all three mines has dropped enormously in recent years—and to an even greater degree in recent months. The Spring Creek Mine is dependent on highly cyclical exports for which recent outlooks are grim according to Moody's Investors Services and Platts/S&P Global Market Intelligence. Production at the Cordero Rojo Mine, which has the lowest-quality coal of the lot, has slipped significantly. The biggest producer of the three, Antelope Mine, competing with every other PRB producer for a declining customer base, will be challenged simply to maintain existing production because there are too many tons of PRB coal today chasing too little demand.

This analysis notes **an additional risk** as well: That customers will consolidate PRB purchases, putting smaller mines out of business entirely.

The Macroeconomic Problem

Coal is no longer king in the U.S., having rapidly ceded that crown to gas generation over the past decade, with wind and solar generation rising quickly as well.

The reasons are many.

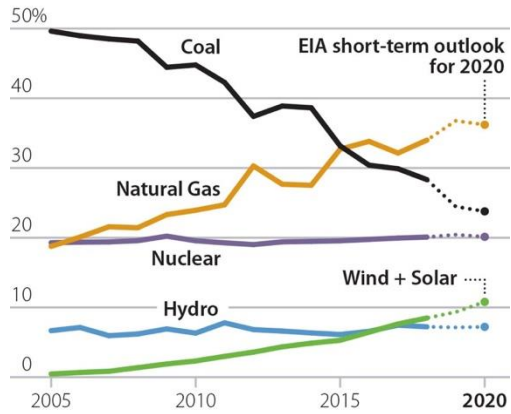
Gains in household and industrial energy efficiency are contributing to a decoupling between economic growth and electricity demand; wind power has risen in importance and will account for about 7.5 percent of electricity production nationally this year, and the rise of utility-scale solar, which is a decade or so behind wind at 1.8 percent is growing fast; the fracking-driven natural gas boom has made coal-fired generation uncompetitive; advances in grid management allow for integration of utility-scale wind and solar plants; and rapid advances in battery storage technology are also making renewables more competitive.

These forces, taken together, have created a technology and market-driven shift in power generation that will continue to make coal-fired electricity less important.

The charts here show this transition, its impact on the coal industry, and why pure-play coal companies like Cloud Peak are either in bankruptcy or struggling to recover from bankruptcy—only perhaps to fail again as market forces favoring other forms of generation continue to grow.

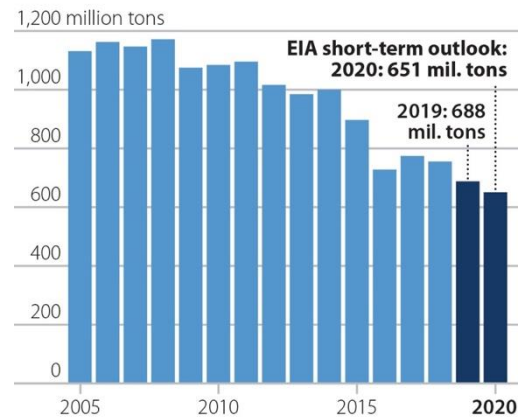
The role of the power sector is critical for coal producers. This year, about 80 percent of all U.S. coal produced will be used by U.S. electric generators. However, their **coal consumption is set to decline by 100 million tons this year versus 2018, with more than 50 coal-fired generation units being permanently retired, including the three units at the Navajo Generating Station.**

Fuel Share for Electric Power Generation
(Utility Scale, All Sectors)



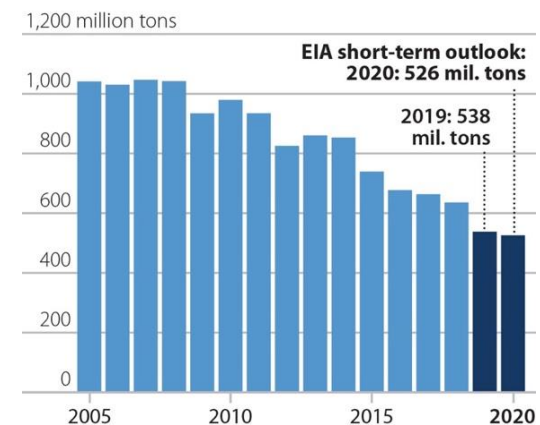
Source: Energy Information Administration (STEO, Aug. 2019)

U.S. Coal Production



Source: Energy Information Administration (STEO, Aug. 2019)

Coal Consumption for Generation
By the Electric Power Sector



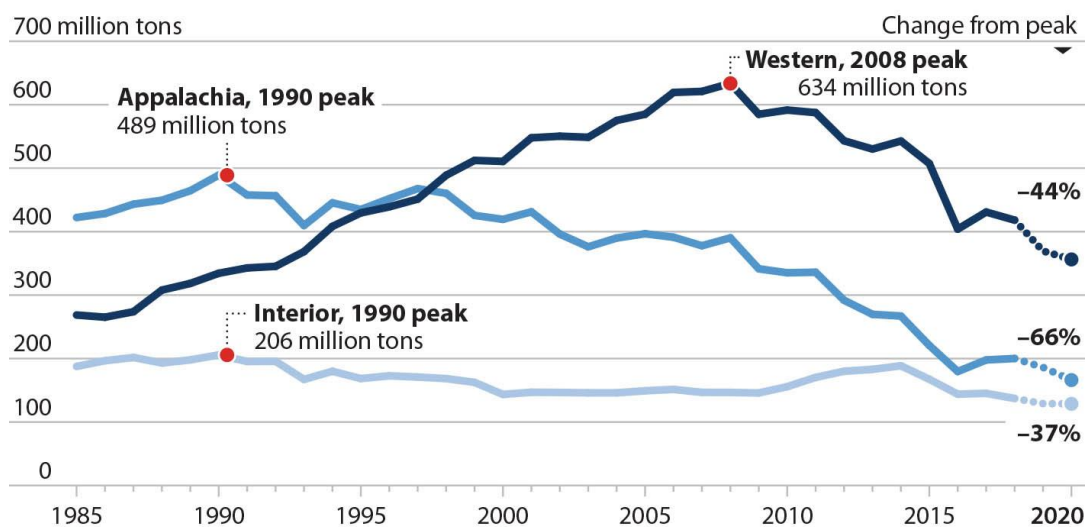
Source: Energy Information Administration (STEO, Aug. 2019)

The Regional Problem

Add to these national trends recently higher-pressure competition in the Powder River Basin itself, where the two biggest players, Peabody Energy and Arch Coal announced in June that they would begin working under a joint operating agreement. That move gives Peabody and Arch an instant edge over Cloud Peak, the third main producer in the region, consolidating a game plan for “more efficiently sharing railroads and, most importantly, cornering a shrinking market for Powder River Basin coal.”¹

U.S. Regional Coal Production, 1985-2018, With Estimates to 2020

Output has fallen sharply in all three major coal mining regions. From their peak years to 2020, production is expected to fall by 44 percent in the West, 37 percent in the Interior, and 66 percent in Appalachia.



Source: Energy Information Administration; 2019-2020 estimates from August 2019 Short-Term Energy Outlook

The Powder River Basin, which accounts for nearly 50 percent of all coal used for electricity generation in the U.S., is in irreversible decline owing to the market forces that are reshaping the power sector.

As was underscored in an IEEFA overview of the basin’s coal industry published earlier this year:²

The Powder River Basin’s coal industry is in structural decline. Flat electricity demand growth coupled with the development of cleaner and cheaper alternatives has led to a sharp decline in coal consumption for power generation—the dominant market for PRB coal.

These trends are expected to continue, pushing more coal plants into retirement and leading to continued contraction in coal demand. In

¹ E&E News. [Peabody-Arch deal: Coal plant lifeline or exit strategy?](#) June 2019.

² IEEFA. [Powder River Basin Coal Industry Is in Long-Term Decline.](#) March 2019.

turn, this will put continued pressure on the PRB's mines and lead to rising economic uncertainty in the region.

These macro trends are outside the control of the coal industry. And even the limited initiatives over which the industry has some control, particularly efforts to boost demand by increasing exports and developing carbon capture technologies, are unlikely to stanch the sector's long-term decline.

Nothing has happened in the meantime—and nothing is likely to happen in future—to change that conclusion.

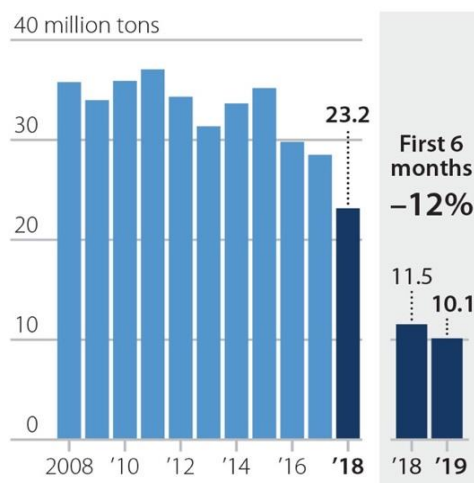
The Mine-by-Mine Problem

As detailed in an IEEFA report published in August,³ production at all three Cloud Peak mines has dropped precipitously over the past decade, part of the broader industry decline. The graphics that follow document the trend mine by mine. Additional data from this year shows the trend gaining momentum.

Antelope Mine

According to S&P Global data, production at Antelope, the biggest of the three mines, was down 12 percent during the first six months of this year compared to the first six months of 2018. This trend is likely to continue as Antelope—like all PRB producers—contends with a declining customer base. In 2018, Antelope sold 4 percent of its coal to Dan E. Karn Generating Station, a Michigan plant that will close in 2023. It sold 3.4 percent of its production in 2018 to Monroe Power Plant south of Detroit, which has been slated for closure by 2040 but may be retired earlier, as has increasingly tended to be the case nationally with many coal-fired plants.⁴

Antelope Mine Coal Production



Source: S&P Global

Spring Creek Mine

Last year, about 3.4 percent of coal from Spring Creek went to the Presque Isle plant in Michigan, which stopped burning coal in March.⁵ Another 16.8 percent went to the Centralia plant in Washington State, which has plans to retire one unit by the

³ IEEFA. [Proposed Navajo Acquisition of Bankrupt U.S. Coal Company Is an Ill-Timed Gamble](#). August 2019.

⁴ IEEFA. [Record Drop in U.S. Coal-Fired Capacity Likely in 2018](#). October 2018.

⁵ Associated Press. [Presque Isle retired, 2 new UP power plants now operating](#). April 2018.

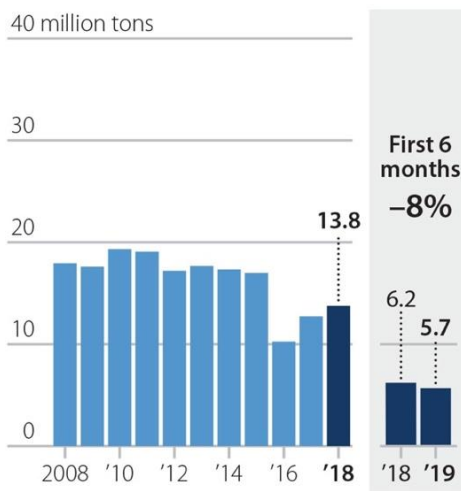
end of next year and the other by the end of 2025.⁶ A third plant, Clay Boswell in northern Minnesota, which used 5.2 percent of the coal from this mine, closed two smaller units (of four) at the end of last year. These three plants, plus the Coronado plant in Arizona, accounted for all of this mine's domestic sales last year, and illustrate the constant challenge of a shrinking customer base. Production at Spring Creek was down 8 percent in the first six months of 2019 over the first six months of 2018, and it had shipped to no new domestic customers as of June. But Spring Creek has an even bigger problem: it relies mainly on exports, with about 71 percent of its coal going to foreign markets last year. With seaborne coal prices falling, Moody's Investors Service this summer downgraded its outlook for this market.⁷ So did Platts/S&P.⁸ The cost of shipping long distances to Asia usually makes coal from the northern U.S. competitive only when prices are high, and—as it stands—competition is intense from closer sources such as Australia and Indonesia.

Cordero Rojo Mine

Not all coal mines in the PRB are the same. The Cordero Rojo Mine is among those with coal that has a lower energy content than that from the largest mines, making it more challenging to sell. This is partly why Cordero Rojo production has fallen from nearly 40 million tons in 2008 to just 12.6 million tons last year. In 2018, this mine sold coal to 21 power plants. Through June of this year, a database of coal sales shows it has had only 10 customers—and one of those received nearly 40 percent of the total: the J.K. Spruce plant in Texas.

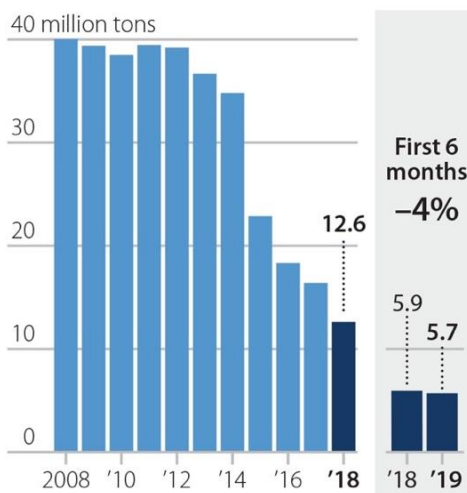
Such a high degree of dependency on one customer is extremely risky. Last year, the mine's largest customer, the J.T. Deely Power Station in Texas, received about 26 percent of all Cordero

Spring Creek Coal Production



Source: S&P Global

Cordero Rojo Coal Production



Source: S&P Global

⁶ Northwest News Network. [Clean electricity rule to phase out fossil fuel plants passes WA state Senate](#). March 2019.

⁷ Moody's. [Coal industry outlook changed to negative as export prices weaken](#). August 2019.

⁸S&P Global Platts. [Platts Analytics lowers US thermal coal exports forecast to 44 million mt in 2019, down another 8.6 million mt in 2020](#). September 2019.

Rojo production, but that plant closed at the end of the year. Pleasant Prairie and a unit at the Edgewater plant, both in Wisconsin, also closed. An additional 17 percent of Cordero Rojo’s coal was sold to two plants in Arkansas also slated for closure, in 2028 and 2030, respectively: White Bluff and Independence. So far this year, those two plants have bought nearly a million tons of coal. In short, this mine faces survival risk as its sales have become highly concentrated and its customer base has fallen sharply.

An Additional Risk

A further complication for Cloud Peak’s mines is that customers of Powder River Basin coal have a tendency to shop around, as can be seen in the graph that follows.

Two-thirds of plants get coal from multiple mines. In 2018, 15 plants sourced coal from five or more mines. This poses serious risks for mining companies should plants consolidate purchases, run less, or shut down.



Many utilities have spread their purchases among multiple mines owned by different producers. Should these plants’ purchases be consolidated, smaller producers could quickly lose sales—a growing possibility as the largest mines are saddled with more and more underutilized capacity.

This point carries weight because price is a deciding factor, and the Peabody-Arch joint operating agreement is meant precisely to give those two companies a regional advantage on price.

Conclusion/Recommendation

In light of ongoing national and local trends in the coal-fired power sector, especially the predominance of natural gas and the rise of more affordable renewables and battery storage, the proposed purchase of Cloud Peak's PRB mines by the Navajo Transitional Energy Company, whose sole shareholder is the Navajo Nation, makes increasingly less sense.

NTEC would do well to reconsider its plans and to focus instead on more robust and economically promising segments of the energy sector, especially low-cost wind and solar.

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