Coal producers remain optimistic

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Wyoming's coal industry is in flux amid diminished demand for energy, pending cap-and-trade legislation and President Barack Obama's new administrative leadership in the agencies that oversee mining.

After more than a decade of steady record growth in Wyoming, production is expected to shrink this year, and three major Powder River Basin coal mines are under pending sales deals.

Of particular concern is whether coal companies will be able to meet reclamation bonding requirements as operations expand their surface footprint and the credit market tightens in the aftermath of the 2008 financial meltdown.

"As the bonding industry and insurance industry continues to consolidate, they don't like having bonds that go for 20, 30 or 40 years. We're still able to get them, but it's a major cost and a real concern about the availability," said Marion Loomis, executive director of the Wyoming Mining Association.

Coal and other mining companies, along with dozens of contractors, will meet in Laramie this week for the WMA's 54th annual convention. Among the list of speakers is Hal Quinn Jr., president and CEO of the National Mining Association.

Peak coal

Along with the issues of bonding, carbon regulation and ongoing mine technology advances is speculation about whether the coal industry is approaching a peak in production.

Blogosphere discussions -- and a recent Wall Street Journal article -- have examined whether the U.S. and world coal industry will soon peak. The discussion is not so much about diminished world reserves of this finite resource, but more about how much coal remains economically viable to mine and whether carbon regulation will limit the expansion of coal-based infrastructure.

U.S. coal consumption in the electric power sector is expected to drop 4.6 percent this year because of slackening demand and fuel-switching to natural gas, nuclear and renewables, according to the U.S. Energy Information Administration. The result could be a 7 percent overall decrease in U.S. coal production for 2009.

But even the EIA sees this as temporary.

The agency projects that an economic recovery, beginning in 2010, will bump U.S. coal production back onto the long-term growth trajectory. The EIA still forecasts world energy demand to increase 50 percent from 2005 to 2030, ensuring a marketplace for coal as long as policies and technology agree on coal's carbon dioxide output.

Loomis said despite pending policy changes and economic challenges, he agrees with the long-term view on coal, particularly for Wyoming.

"I don't see the big reduction that people have suggested. I think Wyoming's coal is going to be well-positioned to compete for many years," Loomis said.

That confidence is based on Wyoming's strong coal infrastructure and market presence.

Wyoming produced a record 462-plus million tons of coal in 2008, representing 40 percent of the nation's coal supply. Wyoming ships coal to about 140 different utilities among 40 states. Coal remains an American mainstay of the U.S. economy, fueling more than half of the nation's electrical generation.

Loomis said even if there were a massive switch to wind, solar, geothermal and other forms of renewable energy in the U.S., coal would still provide the bulk of base-load electric generation for decades.

"Obama talks about doubling renewables. That's easy. Double it, quadruple it, and it's still a fraction of energy that this country consumes," Loomis said.

BLM forecast

Another federal government forecast in 2003 painted an even rosier picture for Wyoming coal.

Then, the Wyoming Bureau of Land Management forecast that annual coal production in the Powder River Basin could increase to about 576 million tons by 2020 -- a 58 percent increase from the 2003 rate.

This week, a BLM official said the agency has no immediate plans to recalculate the forecast because, so far, it has proven accurate.

"We've been tracking pretty well in the first few years since the forecast," said Mike Karbs, assistant field manager of solid minerals at the BLM Casper Field Office.

Powder River Basin coal production has increased by more than 83 million tons since 2003, or 23 percent, keeping with the BLM's low-range growth scenario of reaching 475 million tons of annual production by 2020.

The forecast was based on federal projections for electrical demand, and two market scenarios: the Powder River Basin maintaining its U.S. electric market share, and the basin gaining market share.

Asked whether Powder River Basin coal mines can continue their current growth rate considering the physical challenge of digging deeper and deeper each year, Karbs said the answer can be read in current federal coal lease applications.

Some 4 billion tons of federal coal is under lease application in the Powder River Basin right now, Karbs said. About two-thirds of that volume is in the southern portion of the basin where stripping ratios (the volume of dirt removed compared to the volume of coal mined) range from about 4-to-1 to 6-to-1.

Nick Jones, a geologist at the Wyoming State Geological Survey, said he doesn't put much faith into peak coal theories. While infrastructure is key to maintaining growth, Jones said coal companies in Wyoming, along with BNSF Railway and Union Pacific, have proven capable of amazing advances.

He's even more confident that higher stripping ratios are not a technological barrier.

"Given today's technology, and the amount of reserves in the ground in Wyoming today, there's easily 140 years of coal -- and that's just today's technology," Jones said.

But nothing's a given.

Also included in the BLM's 2003 forecast was the notion that increasing annual coal production could also triple the amount of surface disturbed by mining activities by 2020. And that requires more reclamation bonding -- already a source of concern in the industry as coal officials meet this week in Laramie.

Loomis acknowledged that the growth of Wyoming's coal industry relies on advancing technologies that address energy independence and climate change concerns.

"I think we've got the reserves" to meet modest growth forecasts, Loomis said. "A lot will depend on new technology, and making the change to coal-to-liquids and coal-to-gas. It's doable, but it's a matter of economics and whether the economics make sense."

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