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Citizen
Committee
Ed BROWN

February 14, 2005

TO: Mayor Hanrahan
Gainesville City Commissioners
Mike Kurtz (GRU)

CC: Ed Regan (GRU)
Ron Cunningham (Gainesville Sun)
Jeff Adelson (Gainesville Sun)

At the January 31, 2005 City Commission meeting I made a presentation about the coal industry where I discussed some significant economic and coal supply risks associated with using coal as the fuel for our future power needs. A variety of forces are influencing the coal industry to move it in the direction of higher prices and unstable supplies. These very powerful forces will influence the coal industry for many years. Supplies of oil, natural gas and coal are in decline and prices are rising fast as worldwide demand increases for these fuels.

Since the January 31 meeting, it has become clear to me that many people in Gainesville are also unaware of the significant risks associated with investing our limited resources in a generating facility that burns coal. Subsequent to the meeting, many people from Gainesville have shared with me that they did not know about the economic and resource supply issues I raised in my presentation.

It also became clear to me while I was doing my research that we can look to the recent past for examples of what is now happening in the coal industry and what the future may hold for the coal industry and the city of Gainesville. A very similar set of market dynamics has been taking place recently in the natural gas industry and prior to that in the oil industry. After the oil crises in the 70s and 80s we shifted much of our focus away from domestic and foreign oil to natural gas to heat our homes and our hot water. We also built more natural gas power plants to meet new EPA regulations. This increased demand for natural gas rapidly drained our reserves and prices skyrocketed. Now we are looking to hostile and politically unstable regions around the world for natural gas, just as we did after we began running out of domestic oil in the 70s.

Around the world, other countries are shifting their energy focus to coal for many reasons. This shift is creating tremendous demand for coal. The majority of forecasters predict that this increase in demand will be with us for a long time. Coal will probably follow the same market development path as oil and natural gas - increased demand followed by rapid resource depletion and much higher prices. How many times must we experience this before we change our ways?

The price and supply of coal are not stable now and will not be stable in the future under the predicted market conditions! Coal is a limited natural resource and is subject to the same natural laws as oil and natural gas!

- Demand is rising – between now and 2012 the US has 100 new coal plants planned. India and China are planning 750 plants and the rest of the world has 340 plants in various stages of development.
- Not many coal companies are investing in new coal mines, they are buying bankrupt mines and smaller producers and bleeding them dry. Future supplies are at risk!
- We don't have a 250-year supply of coal – experts predict we have 50-60 years of recoverable coal available.
- With nuclear plants reaching output limits and natural gas prices soaring, coal demand is rising fast. Over 50% U.S. electricity is generated in coal power plants and the percentage is rising.
- Eastern coal from Appalachia, which has powered American industry (including Florida) for more than two centuries, is starting to run short. Many eastern mines are closing due to resource depletion.
- The coal industry is now an oligopoly – five producers control over 50% of the market. Less competition means higher prices.
- Two of the top five coal producers are owned by foreign corporations.
- The Department of Energy predicts coal imports will double by 2012 and triple by 2025. This will create even more dependence on foreign countries for energy.
- Future growth in coal production will most likely come from the Powder River basin in Wyoming and Montana (Western Coal), many more miles from Florida.
- Western coal is less expensive than eastern coal, but the transportation costs are very high, approximately \$30/ton. Western coal contains 30% less energy than eastern coal and large investments must be made in power plants to burn western coal.
- Transportation problems all around the world are delaying coal shipments and transportation prices are rising.
- Wall Street investors are making billions in the coal industry, while electricity rates are rising. Stock prices are up – the Dow Jones Coal Index is up 84% in 12 months.
- Railroads are investing large sums of money in their operations. They'll want it back!
- Government support for Clean Coal technology has dropped significantly since President Bush promised \$2 billion during his campaign in 2000.
- Only two Clean Coal (Integrated Gasification Combined Cycle) power plants will be built in the next 5 years.
- Market analysts are predicting \$70-80/ton coal prices in 2005 for the U.S.. Asian steel producers recently secured coal for \$120-130/ton for 2005. Coking coal is now fetching \$190/ton in China - in 1999 it was fetching \$50/ton.

To help educate all the people involved in this important decision process I have expanded my research on the coal industry and I have prepared the attached information for your review. I hope you will share this information with your constituents and the business community in Gainesville. I will send a copy of this information to the Gainesville Sun so they can review the material and share this important information with the people of Gainesville and Alachua County.

Building a coal-fired power plant will put Gainesville at great economic risk! Please do not approve this plant. Many other alternatives are available to us that reduce our exposure to a very volatile and dangerous coal industry. Serious investments in conservation, renewable energy, and bio-mass are needed, not coal.

In each section of the report I include a short quote or summary, from a variety of sources on the internet. Almost every entry has a link for each article/report so you can easily access the entire document by simply clicking on the link.

Thank you for your commitment to making Gainesville a healthy, vibrant and economically viable community. If I may be of assistance to you in any way, please contact me.

Sincerely,



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U.S. Coal Industry Review
Ed Brown – February 14, 2005

Demand

The shift away from natural gas to produce electricity and the increased demand for steel has increased the demand for coal dramatically in the past few years.

Demand for coal is up over the year, given the increase in electric power generation related to the economic recovery, amplified by coal's increasing cost advantage over natural gas and fuel oil. Thermal coal currently has a substantial delivered price advantage over natural gas for electrical generation purposes (approximately \$1.50-\$1.80 per MMBTU versus natural gas's approximately \$6.50 per MMBTU).

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20050126005602&newsLang=en

And our demand for electricity just keeps growing. Power production has increased steadily, by about 26% in the past ten years, and the Energy Information Administration predicts steady 1.8% growth annually to 2020

<http://www.fortune.com/fortune/mt/0,15704,1025886,00.html?promoid=aol>

Significant increases in demand are also on the way. Between now and 2012 the US has plans to build over 100 new coal plants, China and India plan 750, and other countries have over 340 new plants in various stages of development. (These numbers don't include the many communities around the world, like Gainesville, who are considering coal fired-plants) <http://www.csmonitor.com/2004/1223/p01s04-sten.html>

There is almost no doubt that coal production will rise in the future and the Department of Energy's Energy Information Administration (EIA) predicts that coal consumption will greatly increase in the next two decades. http://www.fromthewilderness.com/cgi-bin/MasterPFP.cgi?doc=http://www.fromthewilderness.com/free/ww3/052504_coal_peak.html

Given the number of new coal-fired power plants that are expected to be built, America will be consuming coal at a faster and faster rate over the next two decades, and that will further shorten the amount of time our minable coal reserves will last. (Recent forecasts suggest we'll be using about 2.5 to 3 billion tons of coal per year within 15 to 20 years, compared with only about 1.1 billion tons currently.)

<http://aol.fool.com/news/commentary/2005/commentary05012406.htm>

With nuclear plants nearing output limits and natural-gas prices soaring, analysts believe coal will become an even more important fuel for electric utilities. More than half the nation's electricity already comes from coal, and demand is expected to increase as the economy improves. Analysts said the outlook for coal also benefits from the Bush administration's industry-friendly positions on issues ranging from power-plant pollution to controversial mining techniques.

Mon. Jan. 26, 2004 By Brad Foss, Associated Press

Now the electric utilities are going back to coal. Natural gas costs three times what it did at the end of the 1990s, and instead of building gas-fired plants, as they did in the 1990s, utilities are planning coal-burning plants.

<http://www.fortune.com/fortune/0,15704,1025886,00.html?promoid=aol>

Colorado coal production is expected to reach another high this year with strong demand from Eastern U.S. utilities. Record production in Colorado last year of about 40 million tons worth \$1.08 billion, topping the 35.8 million tons from 2003, will be followed by an expected increase of 3 percent to 5 percent this year, said Chuck Burggraf, group executive of Colorado operations for Peabody Energy Co.

<http://www.denverpost.com/cda/article/print/0,1674,36%7E33%7E2688855,00.html>

New Delhi: Faced with serious shortages of coal and gas supplies, National Thermal Power Corporation (NTPC) has favored allowing power utilities to enter into coal mining and LNG business besides setting up a framework for price fixation in a transparent manner. <http://www.thehindubusinessline.com/blnus/02031701.htm>

Aside from these production problems, the lure of the booming, export-oriented metallurgical market is irresistible for the mining companies, which have been trying to keep their steel-making-grade coal out of the less profitable power-plant market.

"The market for metallurgical coal this year is so hot," Kenny says.

"Most producers are trying to maximize the percentage of metallurgical coal sold."

Through the third quarter of 2004, Massey decreased its utility coal sales by 7 per cent and increased metallurgical coal sales by 19 per cent. Arch Coal expects to double its metallurgical coal sales this year compared with last year, and to increase those volumes in future years, says company spokeswoman Kim Link.

http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1107298214458&call_pageid=970599119419

Supply

Minable coal refers to the amount of coal in the ground that is technologically and economically recoverable. While conventional wisdom says that North America still has a 150- to 250-year supply of coal -- making it the so-called Saudi Arabia of coal -- experts say the amount of minable coal is actually a lot less -- perhaps only 50 to 60 years' worth. <http://aol.fool.com/news/commentary/2005/commentary05012406.htm>

The Department of Energy predicts a "Higher than usual rate of mine closings (2003-2005) in the East" (where GRU gets its coal), "due to bad geology or reserve depletion". They also report that longwall reserves are dwindling, deeper mines are required to find coal, and the coal beds are now thinner. Finally, they predict that coal imports will double by 2012 and triple by 2025. <http://www.cia.doe.gov/fuelcoal.html>

Another factor constraining supplies are the geologic conditions in the East. Several mines in the area have been closed given reserve depletion or uneconomic geology and several projects have been deferred due to environmental and permitting issues. Finally, transportation bottlenecks in the Eastern U.S. have not helped matters from a supply

perspective either.

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20050126005602&newsLang=en

The largest U.S. coal miners, looking to cash in on an expected rise in coal prices, are trying to grow by buying smaller rivals instead of gambling on developing new mines because it is cheaper and less risky, analysts say. The high fixed costs of investing in unproven mines and concerns about the quality of their reserves are putting a lid on the development of new mines. Instead, coal producers like Arch Coal Inc., are buying smaller producers as a way to meet rising demand while keeping a tight control on costs. <http://www.oligopolywatch.com/2003/09/21.html>

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http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1107298214458&call_pageid=970599119419

Coal Industry Consolidation

Coal already is an oligopoly. At present, the top five companies control over 50% of all coal production, and the top ten control over 66%. That's not an overwhelming amount of consolidation, but it's part of a relentless pattern. In 1984, according to a report by consulting group Pincock, called "Consolidation in the Coal Industry," the top five companies owned only 24% of the market. A number of major consolidations have changed the landscape, and with coal prices rising, we're likely to see a lot more in the near future. <http://www.oligopolywatch.com/2003/09/21.html>

An oligopoly is a market condition in which sellers are so few that the actions of one of them can significantly affect price. Do you remember the impact another energy oligopoly/cartel (OPEC) had on the US in the 70s and 80s?

	<u>1986</u>	<u>1997</u>
<u>Industry Consolidation</u>		
Number of US coal mines	4,424	1,828
Size of average mine (K short tons)	201	596
Productivity (tons/miner/hour)	3.01	6.04
Average price per ton of coal	\$29.52	\$16.14

<http://www.eia.doe.gov/cneaf/coal/special/coalfeat.htm>

Nor is that a North American phenomenon. According to the Pincock industry report on consolidation we cited above, "It is also of great interest to note that, of the top five producers, every entity has been deeply involved in the ownership revolution and that all entities, other than Arch Coal, have been or are now owned by foreign entities. Two of the top five US based coal companies are owned by foreign investors.

<http://www.oligopolywatch.com/2003/09/21.html>

Transportation, Infrastructure and Production Costs

Eastern Coal (Where GRU gets its coal)

Despite the global demand for coal, U.S. mines in central Appalachia — a key region for metallurgical and steam coal — are facing production constraints that will likely keep prices high for U.S. premium coal. And many market observers believe rail congestion in the U.S. East is actually artificially depressing spot-market prices, as utilities have avoided bidding for coal because of doubts the rails can deliver it.

http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_TypeI&c=Article&cid=1107298214458&call_pageid=970599119419

Arch Coal Inc., the No. 2 U.S. coal miner, posted sharply higher fourth-quarter profit on Tuesday but forecast a weaker first period as transportation delays and problems at a West Virginia mine overshadow sky-high coal prices.

<http://aolsvc.news.aol.com/business/article.adp?id=20050208190309990013>

Railroad congestion in the east adds another bullish factor, because the service problems have artificially cooled demand for spot-market coal. Rail deliveries for most of the year, especially on CSX railroad's lines, have been erratic, leaving eastern utilities with stockpiles that are 19 per cent below where they were last year.

http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_TypeI&c=Article&cid=1107298214458&call_pageid=970599119419

Instead, some power-plant owners have resorted to importing coal by barge from South America, which is significantly more expensive than U.S. coal, but bypasses the troubled rail system. "If utilities could get delivery on CSX, you'd see a fairly significant jump in prices," says Stephen J. Doyle, a coal-trading consultant.

http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_TypeI&c=Article&cid=1107298214458&call_pageid=970599119419

But coal deliveries have been hurt by continued delays on railroads, crucial to getting the coal to customers, and recent barge problems on icy eastern rivers. With coal demand higher, traditional railways have not been able to cope with added shipments.

<http://aolsvc.news.aol.com/business/article.adp?id=20050208190309990013>

The growth in coal production will have to come largely from the Powder River basin (Western Coal). Eastern coal from Appalachia, which has powered American industry for more than two centuries, is starting to run short.

<http://www.fortune.com/fortune/imi/0.15704.1025886.00.html?promoid=aol>

Western Coal

The strong demand for Powder River Basin coal is beginning to put strains on the coal supply chain. It takes three months to get one of those huge tires the dump trucks use. The railroads, which also are coping with growth in ship-container traffic, are stressed. Some utilities report getting coal deliveries in the nick of time or not at all.

<http://www.fortune.com/fortune/imi/0.15704.1025886.00.html?promoid=aol>

Meanwhile the price of Powder River Basin coal has remained remarkably steady for years at about \$6 a ton, with only a small jog upward recently. It's not quite the bargain it

seems, because **the cost of transporting it a long way adds \$30 or so a ton to the price**, and it has about one-third less energy, so power companies have to buy more of it. <http://www.fortune.com/fortune/imt/0.15704.1025886.00.html?promoid=aol>

Many existing plants can safely burn a mixture of 70% Western coal and 30% Eastern coal without getting slag problems, but if they go to 100% Western coal, which many are doing, then they will probably need new technology. In 2004 the recovery from the recent recession caught the railroads by surprise. Arch Coal, which owns the huge Black Thunder mine in the basin, wrote in its second-quarter report last year, "Rail difficulties resulted in missed shipments in both East and West, including some of the company's highest-margin Eastern business." The company said the rail delays cost it \$8 million. <http://www.fortune.com/fortune/imt/0.15704.1025886.00.html?promoid=aol>

This wealth of coal can't flow freely through the U.S. economy until some costly and difficult fixes are applied across the whole business of mining, transporting, and burning coal. Rail transport is tight. Compared to bituminous coal from Appalachia, which now dominates the U.S. coal-power scene, the Powder River Basin's sub-bituminous coal has less sulfur but also less energy. Many power plants will need costly renovations before they can use the Western coal.

<http://www.fortune.com/fortune/imt/0.15704.1025886.00.html?promoid=aol>

Despite its abundance, low price, and low sulfur, Powder River Basin coal creates problems for utilities that burn it. It contains chemicals that gum up boilers with lumps of black, rocklike slag. These lumps, which get up to the size of a VW Bug, reduce the efficiency of the plant. The slag may fall 60 to 80 feet from the upper reaches of the boiler and smash the floor of the furnace. More likely the slag will have to be attacked violently to remove it, sometimes even with small explosive charges or shotguns. The plant may be closed for days of cleaning.

<http://www.fortune.com/fortune/imt/0.15704.1025886.00.html?promoid=aol>

International Coal

In addition to higher coal costs, utilities in northern Asia are paying near record freight rates to transport the fuel from Australia, Indonesia and South Africa.

<http://www.bloomberg.com/apps/news?pid=10000080&sid=aBmkyKw06714&refer=asia>

South Africa is the fourth largest coal exporter in the world, after Australia, China and Indonesia. Dogging the bulk commodities sector this year were logistical squeezes from rail capacity to port capacity both domestically and abroad. In Brazil, for example, ships were waiting to be unloaded for as long as 20 days while loading ships took almost as long. <http://www.busrep.co.za/index.php?fSectionId=&fArticleId=2371365>

Investors – Making lots of money as demand and prices rise

Coal companies are now the darlings of Wall Street. Many investors are making lots of money on coal and they see a rosy future for their profits. The four largest US coal companies have seen stock appreciation of 50-100% in the past year.

Interest in coal hedge funds is rising. These investors see lower natural gas supplies and higher long-term prices for oil, natural gas and coal.

Paul Allen, the second richest man in America, has invested heavily in coal and oil recently. His company, Vulcan Partners the #7 coal producer, was recently sold at a large profit to the #3 coal producer!

Ever heard the phrase "minable coal"? Wall Street loves catchphrases, and I suspect that by year's end, that phrase will be bandied about on Wall Street as shorthand for why coal companies stock prices continued to rise in 2005, some by as much as another 50% to 100%.

<http://aol.fool.com/news/commentary/2005/commentary05012406.htm>

Wilbur Ross the man who led a group of investors in the steel industry to huge profits at the expense of the steel-workers and the US government has decided to turn his talents to the coal industry. Ross made \$300 million and his partners pocketed \$2.1 billion in the steel industry. Ross and his partners recently formed International Coal Group and bought three bankrupt coal mines. In September he won approval to offload the \$132 million in pension liabilities of one of these companies to the US government. He then sold parts of that company at a large profit.

<http://lists.iww.org/pipermail/iww-news/2004-November/006858.html>

Like a modern-day Andrew Carnegie, he cornered the U.S. steel market in the early 2000s through his investment fund, WL Ross & Co., acquiring dying steel mills, including Bethlehem Steel and LTV Corp., for a total of about \$2.2 billion. The consolidated company, International Steel Group, became the largest U.S. steelmaker virtually overnight. By purchasing companies that had been stripped of underfunded worker pension plans and forging a new contract with the United Steelworkers, Ross cut enough costs to make ISG profitable. He was also more than a little lucky, buying when steel was less than \$300 a ton and selling when prices topped \$550 a ton. And he benefited from temporary steel tariffs enacted by President Bush.

<http://www.usnews.com/usnews/issue/050131/biztech/31cespotlight.htm>

The sharply rising price of natural gas—coal's primary competition as a fuel for energy plants—has driven the spot price for Appalachian coal from below \$30 per ton last fall to around \$65 today. Coal shares have followed suit: The Dow Jones U.S. Total Market Coal index climbed 84% in the past 12 months. Still, analysts think the industry has plenty of upside left, arguing that years of underinvestment, continuing natural-gas supply constraints, and recent coal industry consolidation will ensure strong earnings for some time. <http://www.fortune.com/fortune/subs/article/0,15114,709959,00.html>

In just four weeks Queensland coal king Ken Talbot has increased his personal fortune by more than \$100 million. Mr Talbot, founding chief executive and managing director, holds 39.82 per cent of Macarthur shares which on yesterday's prices means the humble coal miner was worth nearly \$400 million.

http://www.thecouriermail.news.com.au/common/story_page/0,5936,12142263%5E3122,00.html

Macarthur is not alone. Coal mining companies throughout the country have leapt in recent days, largely as a result of soaring coal prices. Citicorp Smith Barney analyst Brian Warner said latest negotiated prices with the Japanese steel mills for semi-soft coal and high value added coal, such as the PCI variety supplied by Macarthur, were the reason for the rise. "Overnight there has been a major reassessment of the commodity and the stock prices have leapt as a result," he said yesterday. "The rise has given people confidence."

http://www.thecouriermail.news.com.au/common/story_page/0,5936,12142263%5E3122,00.htm

Large Coal Company Investments

The two railroads that serve the basin, Burlington Northern and Union Pacific, are beefing up. Union Pacific hired a record 5,000 workers to add to train crews last year, bought 700 locomotives, and ordered another 315.

<http://www.fortune.com/fortune/int/0,15704,1025886,00.html?promoid=aol>

Clean Coal support from the US government

In October 2004 the president of the United Mine Workers of America said this:

"When he ran for president in 2000, President Bush told coal miners he would spend \$2 billion over 10 years for clean coal technology, or \$200 million per year. In his first two years he requested \$150 million, lowered it to \$130 million last year, and this year dropped it to \$50 million. Bush also proposed to cut the fossil energy budget this year by about a third, including a cut of nearly \$145 million for coal."

<http://www.umwa.org/pressreleases/pressmain.shtml>

Having rejected Kyoto, President Bush says the US will pursue its own policy of voluntary carbon reductions and conduct research into technologies like "carbon sequestration" - burying CO₂ rather than emitting it. To do that, the US Department of Energy hopes to develop new technologies by 2012 that would economically capture the greenhouse gas before it leaves the power plant. One approach - called Integrated Gasification Combined Cycle (IGCC) technology - aims to siphon off CO₂ before it's sent up the stack. The largest US power company, American Electric Power in Columbus, Ohio, plans to build at least **ONE** commercial IGCC plant by 2010. Another coal-burning power company, Cinergy, in Cincinnati, this month said it also would build an IGCC plant. But funding for a key billion-dollar federal IGCC experimental program called FutureGen is lagging. And unless the US sets a limit on CO₂ emissions that creates a market for carbon-reducing technology, there is little financial incentive to invest in such technology, experts say. **As a result, the technology appears unlikely to be deployed in time to make much difference in the coming surge of power-plant construction.** They ignore the fact that the Bush Administration issued proposed

mercury regulations a few months ago that would devastate the eastern coalfields and potentially cause thousands of coal miners to lose their jobs. **The Bush mercury plan essentially gives a free ride to western coal while setting limits for eastern coal that cannot be met by existing technology. The result would be more fuel switching from eastern to western coal, with devastating results for coalfield communities.** Truth is, the Bush mercury plan painted a target on the back of every eastern coal miner. Coal miners have had enough job displacement from President George Bush, Sr.'s 1990 acid rain program, which caused the loss of millions of tons of eastern coal production and thousands of coal mining jobs. We don't need more job losses from the Bush mercury plan. <http://www.umwa.org/pressreleases/pressmain.shtml>

IGCC isn't economical yet on a vast scale. Nor does anyone really know what to do with all that "captured" carbon—billions of tons of it, once the plants are widespread. But IGCC plants will not be ready before the end of the decade, and the technology that will make them carbon-free is still further off.

<http://www.fortune.com/fortune/imt/0,15704,1025886,00.html?promoid=aol>

The Price of Coal

The demand and supply imbalance for Eastern coal, notably Central Appalachian coal and Northern Appalachian coal, has caused spot prices for these coals to skyrocket from the beginning of last year. Prices for spot Central Appalachian compliance coal increased to approximately \$65 per short ton as of Jan. 14, 2005 from \$39 per short ton at the beginning of 2004, and Northern Appalachian coal rose to slightly over \$57 per short ton as of Jan. 14 from \$32 per short ton at the beginning of 2004.

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20050126005602&newsLang=en

To meet this rapidly rising demand in the face of limited minable reserves, prices will have to keep going up -- perhaps to as much as \$70 to \$80 a ton in Appalachia this year alone, compared with about \$50 a ton now.

<http://aol.fool.com/news/commentary/2005/commentary05012406.htm>

Because most coal is purchased through long-term contracts, today's higher spot prices have little immediate effect. But they do give producers leverage during contract negotiations. "An awful lot of coal is being sold at prices that haven't been seen in some time," Gardiner, the Massey Energy executive, said, referring to contracts to deliver coal in 2005 and beyond. Mon, Jan. 26, 2004 By Brad Foss, Associated Press

Asian coal prices have surged since China, the biggest exporter after Australia, began curbing shipments early last year to meet domestic needs. Korea Electric's units paid Chinese suppliers \$55.63 a ton, excluding shipping costs, for 8 million tons of coal they imported last year. That's 85 percent higher than the \$30 a ton paid in 2003 and the highest since the utility began importing coal in 1983. "We expect another year of record coal prices," Korea Southern Power's Park said.

<http://www.bloomberg.com/apps/news?pid=10000080&sid=aBmkyKw067l4&refer=asia>

While the industry once again might be experiencing a short-term boom, many officials and analysts believe coal producers are entering a period of prolonged prosperity - albeit one that won't begin in earnest until 2005; when supply contracts signed this year begin to pay off. [Mon, Jan. 26, 2004 By Brad Foss, Associated Press](#)

Wall Street is upbeat about several trends, most significantly steadily declining productivity at aging Appalachian mines, resulting in two consecutive years of lower nationwide output despite growth in the West. The domestic shortfall - magnified by a handful of bankruptcies among Eastern coal companies since 2001 - has been offset by imports, and no shortages are foreseen. But analysts predict that, over time, supplies will tighten, leading to higher and more volatile prices. "In our view, the long-term supply-and-demand outlook for the U.S. coal producers continues to improve," Credit Suisse First Boston L.L.C. analyst David Gagliano said in a recent report.

[Mon, Jan. 26, 2004 By Brad Foss, Associated Press](#)

\$27 - Price per ton for Colorado coal in 2004, up from \$14 in 2003, according to the U.S. Energy Information Administration.

<http://www.denverpost.com/cda/article/print/0,1674,36%7E33%7E2688855,00.html>

In the past three years the spot price for Central Appalachian coal has jumped 100% to \$66.00 per ton. During the same timeframe, the spot price for Northern Appalachian Coal has risen 47% to \$57.50 per ton. [Platts Coal Outlook](#)

The domestic shortfall - magnified by a handful of bankruptcies among Eastern coal companies since 2001 - has been offset by imports, and no shortages are foreseen. But analysts predict that, over time, supplies will tighten, leading to higher and more volatile prices. [Mon, Jan. 26, 2004 By Brad Foss, Associated Press](#)

U.S. spot-market prices rose about 50 per cent in 2004, owing mainly to soaring global demand for premium coal used to make steel. Market observers don't expect much weakness in the near future.

http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1107298214458&call_pageid=970599119419

Asian steel makers, for example, recently secured coal for the coming year at \$120 (U.S.) to \$130 a ton — about double the previous year's price.

http://www.thestar.com/NASApp/cs/ContentServer?pagename=thestar/Layout/Article_Type1&c=Article&cid=1107298214458&call_pageid=970599119419

Coal prices have been driven by an insatiable need for energy as well as steel required to produce goods and services. This includes both steam coal, used for power generation, and coking coal which is used in blast furnaces in the production of metals such as steel and aluminium. Prices for coking coal bound for China have rocketed from an already hot price of about \$100 (R594) a ton in 2002/03 to within reach of \$190 a ton. To put this into perspective, in 1999 coke barely fetched \$50 a ton.

<http://www.busrep.co.za/index.php?fSectionId=&fArticleId=2371365>

Trevor Arran, a spokesperson for Kumba Resources, the world's fourth largest producer of iron ore, said the year had been a great year for commodities across the board. "And coal and iron ore have been no exception," he said. Arran said negotiations between the large producers and steel mills started in the second week of December and the feeling was that the prices which would be settled on for the next year's contracts would be "significantly higher" than anticipated.

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The U.S. coal industry experienced a sharp rebound in 2004, reflected in the increase in spot prices for many grades of coal since the beginning of last year. While prices for coal vary depending on energy content, sulfur content, ash content, transportation costs, and dependability of supply, spot prices for coals mined domestically have increased anywhere from 75% to 30% over the year to record or near-record levels.

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20050126005602&newsLang=en