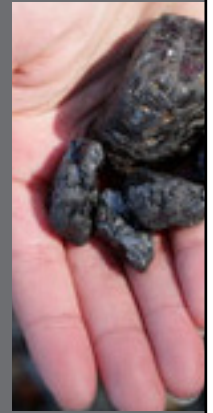


National Mining Association



2013 Coal Producer Survey • June 2014

# 2013 COAL PRODUCER SURVEY

June 2014

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# THE NATIONAL MINING ASSOCIATION 2013 COAL PRODUCER SURVEY

June 2014

## The U.S. Coal Industry In 2013

In many ways, 2013 was another challenging year for the coal industry. Production decreased 3.2 percent to 984 million short tons as producers began to curtail output and inventories, bringing supply and demand more in balance. In addition, flooding in early October impacted some western shipments from Wyoming and Montana. Some production from the Central Appalachian region was picked up by the and Illinois Basin coal regions Northern Appalachian.

The record 126 million short ton coal export level of 2012 decreased somewhat in 2013, ending the year down 6.4 percent to 117.7 million tons due to lower global coal prices, an oversupplied market and, to some extent, stronger (returning) competition from other key overseas suppliers.

On a more positive note, coal consumption and coal generation began to recover as natural gas prices increased significantly and some power producers began to shift back to coal as a preferred fuel in response to a colder-than-normal winter 2013-14. Coal recaptured some market share from natural gas. In the power sector, coal's share of generation increased from about 39 percent to slightly more than 40 percent (see Figure 1 below). And the U.S. electric power industry as a whole had its first generation increase in several years.

**Power Sector Generation by Fuel Source – 2013**

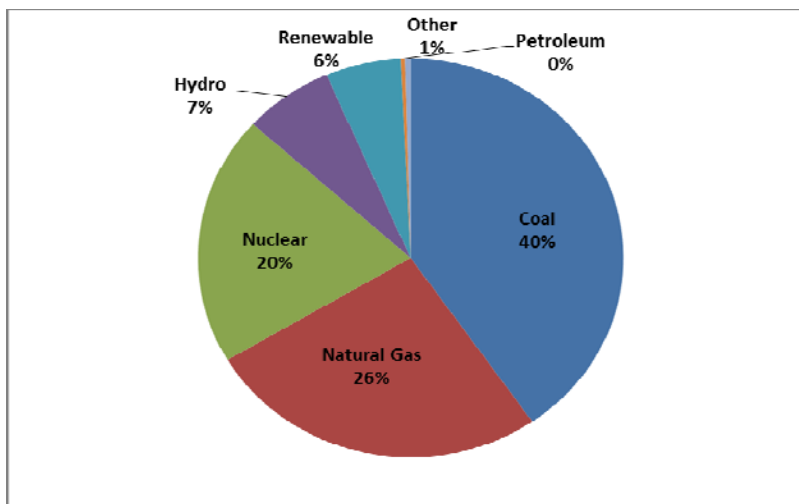


Figure 1

Based on preliminary Energy Information Administration (EIA) data, coal generation demand from all sectors increased 4.8 percent. The mild summer of 2013 was countered by a cooler than average early winter. The lower winter temperatures are credited with beginning to bring coal inventories down by year-end.

The U.S. economy grew only modestly in 2013, with real GDP growing at only 1.9 percent, down from 2.8 percent in 2012. Those factors, combined with the anticipation of further environmental regulations

from the Environmental Protection Agency (EPA), resulted in some coal market challenges. A number of power companies announced their intent to begin retiring coal capacity in future years to meet regulatory requirements.

### **Coal Demand and Competition**

**Consumption/Inventories** – Preliminary EIA data indicate that coal consumption totaled 925.1 million tons in 2013, marking an increase of 4 percent from the prior year level of 889.2 million tons. As previously noted, this was primarily due to weather factors driving higher natural gas prices up and making coal electricity dispatch more competitive.

Coal consumption by the electric power sector, coal's largest market, was up 4.3 percent to 855.9 million tons, some 35 million tons more than in 2012.

Coking coal consumption from coke plants increased nearly 3.5 percent in 2013, to 21.5 million tons. Other industrial demand, which includes cement kilns, agricultural processing and heavy industry and non-utility generation, increased 1.2 percent to 43.3 million tons, while the commercial and residential sector was down slightly to just under 2 million tons.

For reasons previously noted, consumer stockpile levels dropped from 192.7 million tons to 154.8 million tons at year-end, marking a 19.7 percent decrease in 2013. This was attributed to the combination of cooler winter temperatures and natural gas delivery problems that drove natural gas prices up (well above \$4/MMBtu in December of 2013) thereby driving greater gas-to-coal switching in power markets.

Producer and distributor stockpiles ended the year at 42.7 million tons, down 7.5 percent from 2012. Early indications are that stockpiles fell even further in the first quarter of 2014 resulting from the "Polar Vortex" weather events. It is estimated that inventories were down by more than 50 million tons at the end of March 2014 compared to the same period in 2013.

**Power Sector Generation** – Total coal-based power sector generation increased 4.8 percent in 2013 to 1,572.2 billion kilowatt hours (kWh), while natural gas generation decreased nearly 10 percent to 1,020 billion kWh. Nuclear generation increased 2.6 percent from 769.3 billion kWh to approximately 789 billion kWh. Conventional hydro generation decreased nearly 3 percent to 266 billion kWh.

**Coal and Natural Gas Prices** - The average delivered price of coal to electric generating plants was \$2.35 per MMBtu in 2013, down slightly from \$2.38 per MMBtu in 2012.

The average cost of natural gas delivered to all power generating sectors was \$4.33 per MMBtu in 2013, according to EIA data. That figure compares to \$3.42 per MMBtu in 2012; \$4.72 per MMBtu in 2011; and \$5.09 per MMBtu in 2010. EIA expects delivered natural gas prices to continue to rise somewhat this year, averaging \$4.74 per MMBtu, and then dropping back to \$4.33 per MMBtu in 2015.

Average annual natural gas spot prices (Henry Hub) increased approximately 36 percent in 2013 to \$3.75 per MMBtu, fluctuating in the range of \$3.14-\$4.52 per MMBtu over the course of the year. According to EIA, the combination of limited supply from Canaport and Everett liquefied natural gas terminals and pipeline congestion in Tennessee and Algonquin (New England) pipelines resulted in significant price spikes in New England in December 2013 and January 2014. The average biweekly natural gas spot price hit \$14.52 per MMBtu in December and upwards of \$20 per MMBtu in January.

**Natural Gas Storage** – Underground natural gas inventories remained at relatively high levels through 2013 until December when working gas in underground storage available to the market fell to 2.974 TCF, down 15 percent from the same period in 2012.

**Nuclear Power** - Coal and nuclear are competitors as suppliers of baseload power generation. As mentioned above, net generation from 100 U.S. nuclear reactor units (62 plants) in 2013 increased by 2.6 percent to 789 billion kWh. Nuclear plants contributed approximately 19 percent of generation. Despite the closure of several plant units, existing plants ran at greater capacity.

**Nuclear Uprates/Utilization** - The Nuclear Regulatory Commission (NRC) allows nuclear plants to increase their capacity and output through power uprates. According to the NRC, five units totaling 290 MW thermal (MWt) received approval for power uprates in 2013, with another two units projecting uprate applications totaling 116 MWt for 2014. In past years, many nuclear plants have been running longer between maintenance outages and have reduced the duration of each scheduled outage. However, U.S. nuclear power fleet capacity utilization has remained relatively constant in recent years, currently averaging more than a 90 percent capacity factor (90.9 percent in 2013), according to the Nuclear Energy Institute (NEI).

In 2013, four plant reactor units were taken out of service - Crystal River 3, Kewaunee and San Onofre (2 units) - with five remaining under construction (Watts Bar 2, Vogtle 3 & 4, Summer 2 & 3).

**Coal Generating Power Capacity Changes** - EIA estimates that approximately 10 percent, or 1,564 MW, of planned additions to electric generating capacity in 2013 were coal-based. That number is down from 2012 and is expected to fall to 5 percent (593 MW) in 2014. At the same time, EIA's 2014 *Annual Energy Outlook* forecasts 50 gigawatts (GW) of coal generating capacity to be retired by 2020. According to EIA, many of the coal plants slated for retirement are older (more than 50 years old), less efficient plants in the Southeast, Mid-Atlantic and Ohio Valley regions of the country.

**New Coal Plants** – Only two major coal-based power plants entered commercial operation in 2013: Duke Energy's Edwardsport 618 MW IGCC plant in Indiana and LS Power's Sandy Creek-1 925 MW plant in Texas. In 2014, Great River's 99 MW Spiritwood Station combined heat and power (CHP) plant in North Dakota is expected to be operational by year-end. Southern Company's Kemper County advanced integrated combined cycle (IGCC) 582 MW plant in Mississippi, originally expected to open in 2014, is now expected to go in to commercial operation in 2015.

Analysis by the American Public Power Association (APPA), using the Velocity Suite database, indicates that only 2.7 percent of all power plants currently under construction are coal plants, putting coal further behind natural gas at 48 percent, nuclear at 17 percent and wind at 16 percent of new builds. About 920 MW of coal capacity is still under construction and due to come on line by the end of 2016. Another 2,560 MW of coal capacity has been permitted but is not yet under construction.

### **Coal Supply and Trade**

**Production** – According to preliminary EIA figures, total coal production in 2013 fell below a billion tons for the first time in 15 years to nearly 984 million short tons, marking a 32 million ton (3.2 percent) decline. Coal production east of the Mississippi River was approximately 407 million tons, including production from refuse recovery, and accounted for 41 percent of total production. Eastern coal

production decreased 3.9 percent in 2013. The leading Eastern coal producing states -- West Virginia, Kentucky and Pennsylvania -- all experienced lower production levels. The power generating industry's retrofitting of coal-based plants with scrubbers increasingly allow plants flexibility in some cases to switch coal types to the Illinois Basin and Northern Appalachian lower cost, higher sulfur coals. As a result, there is some shift occurring away from Central Appalachian coal toward other basins. In addition, in recent years the Central Appalachian region has been impacted by a combination of thinner coal seams and rising production and regulatory costs.

The West produced nearly 577 million tons of coal and 59 percent of production. Production was down 2.7 percent. Wyoming, the leading coal producing state, mined 388 million tons, down 3.3 percent from 2012, due to lower steam coal demand from power generators, some weather disruptions and capacity constraints.

**Trade** – Coming off a record year in 2012, U.S. coal exports of nearly 126 million decreased 6.4 percent in 2013 to approximately 118 million tons. The 8 million ton drop over 2012 was driven by lower demand for steam and metallurgical coal going to Europe, Asia and Africa. The combination of lower demand, lower prices and competition from other major global exporters resulted in a weaker export market. Exports represented approximately 12 percent of total production in 2013.

Decreases in metallurgical coal export demand came from Asia, particularly India, Japan and China, but also from Canada, Europe and Africa. Conversely, metallurgical coal exports to South America increased.

U.S. steam coal exports decreased in all markets except South America and Canada. Steam coal exports to Canada increased 43 percent, from 2.4 million tons to 3.4 million tons. Despite the increase, Canada has been gradually phasing out its coal-based generating plants over the last few years.

The average coal export price was about \$95.06 per short ton, down 20 percent over 2012. Metallurgical coal prices dropped 24 percent, from \$152.23 per ton to \$115.50. Steam coal prices were down 9 percent, dropping from \$76.16 per ton to \$69.23.

U.S. coal imports decreased 2.8 percent in 2013 to about 8.9 million tons, with the U.S. receiving less coal from Colombia and Venezuela. Coal imports peaked in 2007 and have fallen since then. Imports now account for slightly less than 1 percent of total U.S. coal supply. As new U.S. emissions rules mandate scrubbers to reduce sulfur emissions, the value of imported compliance coals has waned.

The average price for imported coal was down 14 percent to \$83.35 per ton.

### **Other Market Factors**

**Air Emissions Regulations** – Environmental Protection Agency's (EPA) proposed New Source Performance (NSPS) and Mercury and Air Toxics Standards (MATS) rules effectively prevent future coal plants from being built, as well as make it more costly to operate some existing plants long term. As a result, between late 2011 and 2013, a large number of power companies announced their intent to retire coal plants, particularly their smaller, older or less efficient coal plants, due to uncertainty surrounding proposed regulations and the expectation of the continuation of relatively low natural gas prices.

EPA's Cross-State Air Pollution Rule (CSAPR), which had been vacated in August 2012 by the District of Columbia Circuit, was upheld by the U.S. Supreme Court in April 2014. The Supreme Court found that the agency had acted equitably in setting emissions limits for states. However, the EPA's Clean Air Interstate Rule (CAIR) remains in effect until EPA announces how it will respond to the favorable ruling from the court, with phase 2 CAIR reductions scheduled to begin in 2015.

The District of Columbia Circuit also upheld EPA's MATS for coal-fired power plants in April 2014. The court held that EPA properly explained why it concluded costs were not part of the "appropriate and necessary" determination under the law, and that EPA did not act arbitrarily or capriciously in setting any of the emissions standards in the rule and thus upheld EPA's actions in the final rule. The compliance deadline for MATS is in early 2015, so as a practical matter, the decision concludes the impact of any further challenges to EPA's rule despite the chance for an appeal.

**CO<sub>2</sub> Regulations** - In January 2014, EPA re-proposed rule to regulate carbon dioxide (CO<sub>2</sub>) emissions from new power plants by establishing New Source Performance Standards (NSPS). The rule, which had originally been proposed in April 2012, would limit emissions to 1,100 pounds of CO<sub>2</sub> per MW hour of electricity for new coal-fired plants, essentially precluding the building of any new coal plants unless they include the installation of non-commercially available carbon capture and storage technologies. The rule is effective on proposal, although EPA must finalize the rule for new sources before it can regulate CO<sub>2</sub> emissions from existing sources.

Under the president's Climate Action Plan, EPA proposed guidelines for regulating existing sources in June 2014, with those expected to be finalized by June of 2015. States would then be required to submit compliance plans by June of 2016, with EPA approving or disapproving those plans within a year.

**Permitting/Geology/Safety Standards** - Permitting delays and less desirable geology in the Central Appalachian region were at issue again in 2013. Compliance with new, more stringent safety standards and enforcement also impacted the region's competitiveness.

Restrictions on surface mining permits continue to constrain some Central Appalachian surface mining operations. In April 2013, the U.S. Court of Appeals for the District of Columbia Circuit ruled in *Mingo Logan Coal Company v. EPA* that EPA can lawfully veto Clean Water Act section 404 (c) permits after they have been issued. Businesses and associations (including NMA) and state governments filed an amicus brief requesting that the Supreme Court review the case. Unfortunately, in March 2014, the Supreme Court declined.

### **Asset Acquisitions and Restructuring Activity for Selected Companies**

Some recent U.S. coal company sales, acquisitions and restructuring activities are identified below:

**Ambre Energy** – A deal announced in December 2012 between Ambre Energy and Cloud Peak for Ambre to acquire its 50 percent interest in the Decker mine was put on hold indefinitely in August 2013. In December, Resource Capital Funds (RCF), one of Ambre Energy's investors, agreed to increase its stake in the company.

**America West Resources** – America West entered Chapter 11 bankruptcy protection in February 2013.

**Arch Coal** – Arch completed the sale of its Canyon Fuels mine subsidiary in Utah to Bowie Resource Partners in August 2013. In October 2013, it agreed to acquire the Guffy metallurgical coal property from Patriot Coal Corporation to extend the life of its Leer mine. In March 2014, Arch sold its Hazard mining complex to Blackhawk Mining. The sale included four surface mines, a prep plant and a Kentucky River loading facility.

**BHP Billiton** – Completed the sale of its Navaho Mine in New Mexico to the Navajo Nation (Navajo Transitional Energy Company) in December 2013.

**Bowie Resources** – Bowie acquired Arch Coal’s Canyon Fuels mines in August 2013 (see Arch Coal).

**Cline Mining Corporation** – In 2013, Cline continued to work through the financial restructuring process that began in late December 2012.

**Cloud Peak Energy** – The deal announced in December 2012 between Cloud Peak and Ambre Energy for Cloud Peak to sell its 50 percent interest in the Decker mine to Ambre Energy was put on hold indefinitely in August 2013.

**Consol Energy** – Consol sold five of its West Virginia underground coal mines and river and dock facilities to Murray Energy in December 2013.

**Energy Future Holdings** – Energy Future Holdings (formerly known as TXU Corp.) filed for Chapter 11 bankruptcy protection April 2014.

**Essar Minerals** – India-based Essar Minerals’ Trinity Coal and Frasure Creek subsidiaries were placed under bankruptcy protection in February of 2013.

**Hallador Energy** – Hallador, and its Sunrise Coal subsidiary, purchased a multi-commodity Ohio River terminal in Illinois in July 2013 from the Kanipe family.

**Hartshorne Mining Group** – Hartshorne acquired Buck Creek Resources’ coal assets in April 2013. In October 2013, Hartshorne was acquired by Paringa Resources.

**James River Coal** – James River filed for Chapter 11 bankruptcy protection in April 2014. The company notified the court in May 2014 that it had reached agreements to sell its idled McCoy Elkwood mining complex in Eastern Kentucky to Opes Resources and Marshall Resources.

**JW Resources Inc.** – JW Resources, owned by Bayside Capital, Inc., acquired Appolo Fuels, Inc.’s Bell County, Kentucky and Claiborne County, Tennessee thermal coal mining operations in March 2014. Its newly formed subsidiary is called Middlesboro Mining, Inc.

**Lily Group** - Lily filed for bankruptcy protection in September 2013. The Indiana coal company was acquired by LC Energy Holdings in February 2014.

**Murray Energy** – In December 2013, Murray finalized the sale of five West Virginia longwall mines, reserves and related transportation and dock facilities from Consol Energy (see Consol Energy). Murray acquired Oxford Resource Partner’s Island Coal terminal in Western Kentucky in April 2014.

**Oxford Resource Partners** – Oxford sold its Island Coal terminal to Murray Energy in April 2014 (see Murray Energy).

**Patriot Coal** – Patriot’s reorganization plan was approved in November 2013. (It entered bankruptcy protection in July 2012.)

**Suncoke Energy Partners** – Acquired Lakeshore Coal Handling Corporation from privately held Beemsterboer in August 2013. In October 2013, it completed the acquisition of full ownership of Kanawha River Terminals LLC.

**Twin Star Coal** – Twin Star of Kentucky filed for Chapter 11 bankruptcy protection in July 2013.

**Walter Energy** – Walter acquired Xinerger’s Straight Creek and Red Bird steam coal operations in February 2013. In May 2014, Walter announced that it had reached an agreement to sell its Blue Creek coal terminal in Mobile, Ala., to the Alabama State Port Authority.

**Westmoreland Coal Company** – Westmoreland completed acquisition of Sherritt International Coal’s Canadian operations in April 2014.

**White Energy** – White Energy acquired small Kentucky mining company Mountainside Coal in September 2013.

**Xinerger Ltd.** – Xinerger sold its Straight Creek and Red Bird (Kentucky) coal properties to JW Resources Inc. in February 2013 (see JW Resources).

### **Major Coal Producing Companies, Mines and Mine Complexes in 2013 (Tables 1-4)**

Table 1, compiled by the National Mining Association from data collected through a survey of major coal producers and government data, shows 2013 production for 50 coal producing companies in the United States. In 2013, Peabody Energy Corporation was the largest coal producer in the U.S., with output (including tons sold) of 184.7 million tons, representing 18.8 percent of total U.S. coal production. The second largest was Arch Coal, Inc., with 137.5 million tons (including tons sold), representing 14 percent of total U.S. coal production. Ranking third was Cloud Peak Energy, Inc., with 87.6 million tons, or 8.9 percent of production. The fourth largest coal producer, Alpha Natural Resources, Inc. had output of 87.6 million tons, or 8.9 percent of U.S. production. The fifth largest producer was Murray Energy Corporation, with 58.2 million tons, or 5.9 percent of production. The top five coal producing companies in the survey accounted for 56 percent of total U.S. production, while the top 10 accounted for nearly 72 percent.

Table 2 lists the top five underground mines in terms of production. They were CONSOL’s Bailey Mine in Pennsylvania, with 11.4 million tons; CONSOL’s Enlow Fork Mine in Pennsylvania, with 10.1 million tons; Murray Energy’s Marshall County Mine in West Virginia (formerly known as the McElroy mine), with 9.4 million tons; Alliance Resource Partner’s River View Mine in Kentucky, with 9.3 million tons; and Signal Peak Energy’s Bull Mountain Mine in Montana, with 8.7 million tons.

The five top producing surface mines (Table 3) in 2013 were: Peabody Energy’s North Antelope Rochelle Mine, with 111.0 million tons; Arch Coal’s Black Thunder Mine, with 100.6 million tons; Cloud Peak Energy’s Cordero Rojo Mine with 36.7 million tons, and its Antelope Mine with 31.4 million tons; and Alpha Natural Resources’ Eagle Butte Mine, with 19.9 million tons. All are located in Wyoming’s Powder River Basin coal region.

Table 4 shows the 2013 output of major multi-mine production complexes, which are mine operations or complexes that process coal production from several mines. Murray Energy's American Coal Company Galatia operations in Illinois was the largest multi-mine complex, with 9.9 million tons; second was Arch Coal's Coal-Mac operation in West Virginia, with 3.1 million tons; third was Peabody Energy's Somerville Central operation in Indiana, with 2.7 million tons; fourth was Patriot Coal's Paint Creek operation in West Virginia with 2.4 million tons; and fifth was James River's Triad operation in Indiana, with 2.3 million tons.

### **Major U.S. Coal Reserve Holders in 2013 (Table 5)**

The U.S. government is the single largest reserve holder, with about one-third ownership of the nation's coal resources -- or approximately 86 billion tons of estimated recoverable coal reserves. Great Northern Properties Limited Partnership reported the second largest reserve holding with 20 billion tons. Third was Peabody Energy with 7.3 billion tons, and fourth and fifth were Arch Coal and Alpha Natural Resources with 5.3 billion and 4.3 billion tons respectively.

## Survey Methodology

Coal producers and reserve holders were asked to provide their company's total U.S. coal production and reserve holdings for 2013. They also were asked to name their mines and the production output of each mine using the following criteria: surface mines with production of two million tons or greater; underground mines with production of one million tons or greater; and any multi-mine production complex with output of more than one million tons. A multi-mine production complex is defined as an operation that is not a single mine, but processes production from more than one mine (excluding prep plants). As in past years, significant effort was made to include as many coal producers and reserve holders as possible.

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Notes: The production figures reported in this survey are intended to reflect ownership of mine production as of the end of calendar year 2013. Companies not included in the list are encouraged to submit data for next year. The National Mining Association has conducted a survey of major coal producers since the 1980s. The results of prior surveys can be found in earlier editions of NMA's *Coal Producer Survey*, and prior to 1998, in *NMA Facts About Coal, and Facts About Coal & Minerals*, and Mining Media Publishing's *Keystone Coal Industry Manuals*. The latest edition of NMA's *Coal Producer Survey* report is available in PDF format. NMA greatly appreciates the many contributors to this annual survey and report.

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**TABLE 1**  
**Major U.S. Coal Producers - 2013**  
**(Million Short Tons)**

<b>Company</b>	<b>Production Tonnage</b>	<b>Percent of Total U.S.</b>
1. Peabody Energy Corporation <sup>1</sup>	184.7	18.8%
2. Arch Coal, Inc. <sup>2</sup>	137.5	14.0%
3. Cloud Peak Energy, Inc. <sup>3</sup>	87.6	8.9%
4. Alpha Natural Resources, LLC	85.8	8.7%
5. Murray Energy Corporation <sup>4</sup>	58.2	5.9%
6. Alliance Resource Partners	38.8	3.9%
7. North American Coal Corporation	29.9	3.0%
8. Luminant Mining Company (Energy Future Holdings)	28.6	2.9%
9. CONSOL Energy Inc. <sup>5</sup>	28.5	2.9%
10. Westmoreland Coal Company	24.9	2.5%
11. Patriot Coal Corporation	21.3	2.2%
12. Kiewit Mining Group, Inc.	19.0	1.9%
13. The Cline Group (Foresight Energy/Coalfield Transport) <sup>6</sup>	18.8	1.9%
14. BHP Billiton	13.3	1.4%
15. Bowie Resource Partners, LLC <sup>6</sup>	12.6	1.1%
16. Walter Energy Company	11.0	1.0%
17. Armstrong Energy Corporation <sup>6</sup>	9.5	0.9%
18. Signal Peak Energy, LLC (Boich/FirstEnergy/Gunvor)	8.7	0.8%
19. Interwest Mining Company (PacifiCorp)	8.0	0.5%
20. Western Fuels Association, Inc.	5.4	0.8%
21. James River Coal Company	7.4	0.7%
22. Rosebud Mining Company	7.3	0.7%
23. Cliffs Natural Resources Inc. <sup>6</sup>	7.2	0.6%
24. Oxford Resource Partners, LP	6.3	0.6%
25. Vectren Fuels, Inc. (Five Star)	6.2	0.6%
26. TECO Coal Corporation	5.7	0.5%
27. Booth Energy Group <sup>6</sup>	5.0	0.5%
28. Prairie State Energy Company <sup>6</sup>	4.6	0.4%
29. Black Hills Corporation (Wyodak Resources)	4.3	0.4%
30. BNI Coal, LTD	3.7	0.4%
31. Ambre Energy North America, Inc. <sup>6,7</sup>	3.7	0.4%
32. Rhino Energy LLC	3.6	0.3%
33. Sunrise Coal Company (Hallador) <sup>6</sup>	3.3	0.3%
34. Dana Mining Company (GenPower Holdings LP) <sup>6</sup>	2.8	0.3%
35. Dolet Hills Lignite Company (AEP)	2.7	0.3%
36. Knight Hawk Coal, LLC <sup>6</sup>	2.6	0.3%
37. Ranger Energy/Justice <sup>6</sup>	2.6	0.3%
38. Metinvest BV <sup>6</sup>	2.5	0.2%
39. ArcelorMittal <sup>6</sup>	2.3	0.2%
40. Western Fuels-Colorado, LLC. (Tri-state)	2.3	0.2%
41. Solar Sources, Inc.	2.1	0.2%
42. Trapper Mining Inc.	1.9	0.2%
43. Drummond Company, Inc.	1.8	0.2%
44. Mechel Oao <sup>6</sup>	1.8	0.2%
45. Vigo Coal Company, Inc. <sup>6</sup>	1.8	0.2%
46. Usibelli Coal Mine, Inc.	1.6	0.1%
47. PBS Coals, Inc. (Severstal Oao) <sup>6</sup>	1.2	0.1%
48. SunCoke Energy, Inc.	0.5	0.0%
49. Oxbow Mining, LLC	0.4	0.0%
50. Essar/Frasure Creek Mining Company <sup>6</sup>	0.4	0.0%
Other Producers	52.3	5.3%
<b>Total U.S. Production <sup>8</sup></b>	<b>984.0</b>	<b>100.0%</b>

Notes: Figures are rounded. 2013 data compiled from 2014 NMA survey of major producers. May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition. U.S. production total for 2013 is an EIA preliminary estimate.

<sup>1</sup> Peabody Energy Corp. production figure includes tons sold, excluding trading and brokerage operations.

<sup>2</sup> Arch Coal, Inc. production figure includes sales, excluding brokered tons. Includes Canyon Fuels tonnage up to date of sale.

<sup>3</sup> Cloud Peak production figure includes 50 percent interest in Decker Mine.

<sup>4</sup> Murray Energy production figure includes mines purchased from Consol.

<sup>5</sup> Consol production figure excludes mines sold to Murray Energy.

<sup>6</sup> Department of Labor, Mine Safety & Health Administration 2013 preliminary data.

<sup>7</sup> Ambre Energy production figure includes 50 percent interest in Decker Mine.

<sup>8</sup> Department of Energy, Energy Information Administration 2013 preliminary data.

TABLE 2

## Major U.S. Underground Coal Mines - 2013 (Million Short Tons)

Mine Name	Location	Tonnage	Operating Company
1. Bailey	Pennsylvania	11.4	CONSOL Energy Inc.
2. Enlow Fork	Pennsylvania	10.1	CONSOL Energy Inc.
3. Marshall County (formerly McElroy)	West Virginia	9.4	Murray American Energy
4. River View	Kentucky	9.3	River View Coal, LLC (Alliance)
5. Bull Mountain	Montana	8.7	Signal Peak Energy LLC
6. Century	Ohio	8.0	American Energy Corp. (Murray)
7. Twentymile	Colorado	7.2	Peabody Energy Subsidiary
8. Mach No. 1 <sup>1/</sup>	Illinois	6.7	Mach Mining LLC (Coalfield Transport/Foresight)
9. MC No. 1 <sup>1/</sup>	Illinois	6.5	M Class Mining LLC (Coalfield Transport/Foresight)
10. SUFCO	Utah	6.0	Bowie Resource Partners, LLC (Formerly Canyon Fuel)
11. San Juan	New Mexico	6.0	BHP Billiton-New Mexico Coal
12. West Elk	Colorado	5.9	Arch Coal, Inc.
13. Warrior	Kentucky	5.9	Warrior Coal, LLC (Alliance)
14. Cumberland	Pennsylvania	5.6	Cumberland Coal Resources (Alpha)
15. Powhatan No. 6	Ohio	5.6	The Ohio Valley Coal Co. (Murray)
16. Ohio County (formerly Shoemaker)	West Virginia	5.5	Murray American Energy
17. New Future	Illinois	5.5	American Coal Co. (Murray)
18. Harrison County (formerly Robinson Run )	West Virginia	5.4	Murray American Energy
19. No. 7	Alabama	5.4	Jim Walter Resources, Inc.
20. Marion County (formerly Loveridge)	West Virginia	5.3	Murray American Energy
21. Buchanan	Virginia	4.8	CONSOL Energy Inc.
22. Deer Run <sup>1/</sup>	Illinois	4.8	Patton Mining (Coalfield Transport/Foresight)
23. Lively Grove <sup>1/</sup>	Illinois	4.6	Prairie State Generating
24. New Era	Illinois	4.4	American Coal Co. (Murray)
25. Bridger Underground	Wyoming	4.4	Bridger Coal Company (Interwest)
26. Gibson	Indiana	3.9	Gibson County Coal, LLC (Alliance)
27. Tunnel Ridge	West Virginia	3.7	Tunnel Ridge, LLC (Alliance)
28. Emerald	Pennsylvania	3.6	Emerald Coal Resources (Alpha)
29. Dotiki	Kentucky	3.5	Webster County Coal LLC (Alliance)
30. Federal	West Virginia	3.4	Eastern Associated Coal Co., LLC (Patriot)
31. Oaktown Fuels No. 1	Indiana	3.4	Black Panther Mining, LLC (Vectren)
32. Bowie No. 2 <sup>1/</sup>	Colorado	3.3	Bowie Resource Partners, LLC
33. Monongahelia County (formerly Blacksville)	West Virginia	3.2	Murray American Energy
34. Hopkins	Kentucky	3.1	Hopkins County Coal, LLC (Alliance)
35. Carlisle <sup>1/</sup>	Indiana	3.1	Sunrise Coal Co. (Hallador)
36. Highland	Kentucky	2.9	Highland Mining Co., LLC (Patriot)
37. Francisco	Indiana	2.9	Peabody Energy Subsidiary
38. Deer Creek	Utah	2.8	Energy West Mining Co. (Interwest)
39. Gateway	Illinois	2.8	Peabody Energy Subsidiary
40. Skyline	Utah	2.7	Bowie Resource Partners, LLC (Formerly Canyon Fuel)
41. West Ridge	Utah	2.6	Utah American Energy, Inc. (Murray)
42. Pattiki	Illinois	2.6	White County Coal LLC (Alliance)
43. Panther	West Virginia	2.6	Panther LLC (Patriot)
44. No. 4	Alabama	2.6	Jim Walter Resources, Inc.
45. Kronos <sup>1/</sup>	Kentucky	2.6	Armstrong Energy Corp.
46. Rockspring Deep	West Virginia	2.5	Rockspring Development (Alpha)
47. Mettiki	West Virginia	2.4	Mettiki Coal LLC (Alliance)
48. Paradise	Kentucky	2.4	KenAmerican Resources, Inc. (Murray)
49. Sebree-Onton	Kentucky	2.4	Sebree Mining, LLC (Alliance)
50. Mountaineer 2	West Virginia	2.3	Arch Coal, Inc.
51. Viper	Illinois	2.3	Arch Coal, Inc.
52. Prairie Eagle <sup>1/</sup>	Illinois	2.3	Knight Hawk Coal, LLC (Bunn)
53. Oak Grove <sup>1/</sup>	Alabama	2.3	Oak Grove Resources LLC (Cliffs NR)
54. Prosperity	Indiana	1.8	Five Star Mining, Inc. (Vectren)
55. 4 West <sup>1/</sup>	Pennsylvania	1.6	Dana Mining Co.
56. Wildcat Hills	Illinois	1.6	Peabody Energy Subsidiary
57. Shoal Creek	Alabama	1.5	Drummond Company Inc.
58. North River	Alabama	1.4	Jim Walter Resources, Inc.
59. Matrix Energy No. 1 <sup>1/</sup>	Kentucky	1.4	Matrix Energy LLC (Booth)
60. Parkway <sup>1/</sup>	Kentucky	1.3	Armstrong Energy Corp.
61. MC Mining	Kentucky	1.3	MC Mining, LLC (Alliance)
62. Prime No. 1 <sup>1/</sup>	West Virginia	1.2	Dana Mining Co. (GenPower Holdings, LP)
63. Pinnacle <sup>1/</sup>	West Virginia	1.2	Pinnacle Mining Co. (Cliffs NR)
64. Hopedale	Ohio	1.1	Rhino Energy LLC
65. Slabcamp Stockton	West Virginia	1.1	Mammoth Coal Co. (Alpha)
66. Alma	West Virginia	1.1	Aracoma Coal Co. (Alpha)
67. Beckley/Pocahontas D	West Virginia	1.1	Arch Coal, Inc.
68. Sentinel	West Virginia	1.0	Arch Coal, Inc.
69. Dodge Hill	Kentucky	1.0	Dodge Hill Mining Co. (Patriot)
70. Oaktown Fuels No. 2	Indiana	1.0	Black Panther Mining, LLC (Vectren)

Notes: Figures are rounded. 2013 data compiled from 2013 NMA survey of major producers.

May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition.

<sup>1/</sup> Department of Labor, Mine Safety & Health Administration, 2013 preliminary data.

**TABLE 3**  
**Major U.S. Surface Coal Mines - 2013**  
**(Million Short Tons)**

	<b>Mine Name</b>	<b>Location</b>	<b>Tonnage</b>	<b>Operating Company</b>
1.	North Antelope Rochelle	Wyoming	111.0	Peabody Energy Subsidiary
2.	Black Thunder	Wyoming	100.6	Arch Coal, Inc.
3.	Cordero Rojo	Wyoming	36.7	Cloud Peak Energy
4.	Antelope	Wyoming	31.4	Cloud Peak Energy
5.	Eagle Butte	Wyoming	19.9	Alpha Coal West
6.	Belle Ayr	Wyoming	18.3	Alpha Coal West
7.	Spring Creek	Montana	18.0	Cloud Peak Energy
8.	Rawhide	Wyoming	14.2	Peabody Energy Subsidiary
9.	Buckskin	Wyoming	14.1	Buckskin Mining Co. (Kiewit)
10.	Freedom	North Dakota	13.8	Coteau Properties Co. (North American)
11.	Caballo	Wyoming	9.0	Peabody Energy Subsidiary
12.	Kosse	Texas	8.9	Luminant Mining
13.	Martin Lake	Texas	8.8	Luminant Mining
14.	El Segundo	New Mexico	8.7	Peabody Energy Subsidiary
15.	Coal Creek	Wyoming	8.5	Arch Coal, Inc.
16.	Rosebud	Montana	8.2	Westmoreland Resources Inc.
17.	Bear Run	Indiana	8.2	Peabody Energy Subsidiary
18.	Falkirk	North Dakota	7.7	The Falkirk Mining Co. (North American)
19.	Navajo	New Mexico	7.3	BHP Billiton-New Mexico Coal
20.	Kayenta	Arizona	7.2	Peabody Energy Subsidiary
21.	Three Oaks	Texas	7.1	Luminant Mining
22.	Dry Fork	Wyoming	5.4	Western Fuels-Wyoming
23.	Jewett	Texas	5.0	Texas Westmoreland Coal Co.
24.	Kemmerer	Wyoming	4.6	Westmoreland Resources Inc.
25.	Wyodak	Wyoming	4.3	Wyodak Resources Dev. Corp. (Black Hills)
26.	Absaloka	Montana	4.2	Westmoreland Resources Inc.
27.	Sabine/South Hallsville	Texas	3.9	Sabine Mining (North American)
28.	Center	North Dakota	3.7	BNI Coal, Ltd.
29.	Black Butte <sup>1/</sup>	Wyoming	3.7	Black Butte Coal Co. (Ambre & Anadarko)
30.	Oak Hill	Texas	3.4	Luminant Mining
31.	Red Hills	Mississippi	3.3	Mississippi Lignite (North American)
32.	Beckville	Texas	3.2	Luminant Mining
33.	San Miguel	Texas	3.2	Kiewit Mining Group
34.	Big Brown	Texas	3.1	Luminant Mining
35.	Decker <sup>1/</sup>	Montana	3.1	Cloud Peak Energy & Ambre Energy
36.	Coal-Mac/Phoenix	West Virginia	2.8	Arch Coal, Inc.
37.	Gateway	Illinois	2.8	Peabody Energy Subsidiary
38.	Dolet Hills Lignite	Louisiana	2.7	Dolet Hills Lignite Co. (AEP)
39.	Equality <sup>2/</sup>	Kentucky	2.7	Armstrong Coal Co.
40.	Somerville Central	Indiana	2.6	Peabody Energy Subsidiary
41.	Beulah	North Dakota	2.5	Dakota Westmoreland Corp.
42.	Twilight/Progress	West Virginia	2.5	Progress Coal Co. (Alpha)
43.	Corridor G (Hobet 21)	West Virginia	2.3	Patriot Coal Corp.
44.	Tatum	Texas	2.2	Luminant Mining
45.	Colowyo	Colorado	2.2	Western Fuels-Colorado (Tri-State)
46.	Republic	West Virginia	2.1	Republic Energy Co. (Alpha)
47.	Wild Boar	Indiana	2.0	Peabody Energy Subsidiary

Notes: Figures are rounded. 2013 data compiled from a 2014 NMA survey of major producers.

May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition.

1/ Fifty percent ownership each.

2/ Department of Labor, Mine Safety & Health Administration, 2013 preliminary data.

**TABLE 4**  
**Major Multi-Mine<sup>1/</sup> Production Complexes - 2013**  
**(Million Short Tons)**

	<b>Complex Name</b>	<b>Location</b>	<b>Tonnage</b>	<b>Company</b>
1.	American Coal (Galatia Complex)	Illinois	9.9	The American Coal Company (Murray)
2.	Coal-Mac	West Virginia	3.1	Arch Coal, Inc.
3.	Somerville Central	Indiana	2.7	Peabody Energy Subsidiary
4.	Paint Creek	West Virginia	2.4	Patriot Coal Corp.
5.	Triad <sup>2/</sup>	Indiana	2.3	Triad Mining, Inc. (James River)
6.	Miller Creek	West Virginia	2.2	CONSOL of Kentucky
7.	Premier Elkhorn	Kentucky	2.1	Premier Elkhorn Coal Co. (TECO)
8.	Perry County	Kentucky	2.0	Perry County Coal Corp. (TECO)
9.	Lone Mountain	Kentucky	1.9	Arch Coal, Inc.
10.	Hazard	Kentucky	1.8	Arch Coal, Inc.
11.	Clintwood	Kentucky & Virginia	1.7	Clintwood Elkhorn Mining (TECO)
12.	Midland Trail	West Virginia	1.5	Patriot Coal Corp.
13.	Somerville North	Indiana	1.5	United Minerals (Peabody)
14.	Somerville South	Indiana	1.5	United Minerals (Peabody)
15.	Wells	West Virginia	1.4	Patriot Coal Corp.
16.	CAM Mining	Kentucky	1.4	CAM Mining, LLC (Rhino)
17.	Hopedale Mining	Ohio	1.1	Hopedale Mining, LLC (Rhino)

Notes: Figures are rounded. 2013 data compiled from 2014 NMA survey of major producers.

May not be all-inclusive. Any companies not included in this listing are invited to submit data for the next edition.

<sup>1/</sup> A multimine complex is a mine operation that processes production from more than one mine.

<sup>2/</sup> Mine Safety & Health Administration

**TABLE 5**  
**Major Holders of U.S. Coal Reserves - 2013**  
**(Billion Short Tons)**

Holder	Estimated Reserves
1. U.S. Government	86.000 *
2. Great Northern Properties Limited Partnership	20.000
3. Peabody Energy Corporation	7.340
4. Arch Coal, Inc.	5.300
5. Alpha Natural Resources, LLC	4.316
6. CONSOL Energy Inc.	3.032
7. The Cline Group (Coalfield Transport/Foresight Energy) <sup>1/</sup>	3.000
8. Murray Energy Corporation	2.400
9. Natural Resource Partners LP	2.300
10. North American Coal Corporation	2.300
11. Patriot Coal Corporation	1.768
12. Pocahontas Land Corporation (Norfolk Southern)	1.660
13. Cloud Peak Energy, Inc.	1.200
14. Alliance Resource Partners	1.100
15. Kentucky River Properties LLC	0.980
16. Penn Virginia Resource Partners, LP	0.847
17. Luminant Mining Company (Energy Future Holdings)	0.700
18. Usibelli Coal Mine, Inc.	0.700
19. BNI Coal, LTD	0.650
20. Armstrong Energy Corp. <sup>1/</sup>	0.571
21. Rosebud Mining Company	0.545
22. Westmoreland Coal Company	0.514
23. Rhino Energy LLC	0.458
24. Signal Peak Energy, LLC (Boich/FirstEnergy/Gunvor)	0.400
25. Prairie State Energy Company <sup>1/</sup>	0.400
26. Kiewit Mining Group, Inc.	0.338
27. James River Coal Company	0.335
28. Western Fuels Association, Inc.	0.330
29. TECO Coal Corporation	0.298
30. Dolet Hills Lignite Company (AEP)	0.276
31. Ambre Energy North America, Inc. <sup>1/</sup>	0.258
32. Walter Energy Company	0.257
33. BHP Billiton	0.246
34. Black Hills Corporation (Wyodak Resources)	0.213
35. ArcelorMittal <sup>1/</sup>	0.167
36. Metinvest BV <sup>1/</sup>	0.140
37. Interwest Mining Company (PacifiCorp)	0.135
38. Sunrise Coal Company (Hallador) <sup>1/</sup>	0.124
39. Western Pocahontas Properties	0.122
40. Vectren Fuels, Inc. (Five Star)	0.121
41. Bowie Resource Partners LLC <sup>1/ 2/</sup>	0.105
42. SunCoke Energy, Inc.	0.100
43. Western Fuels - Colorado, LLC (Tri-State)	0.092
44. Drummond Company, Inc.	0.088
45. Mechel Oao <sup>1/</sup>	0.075
46. Oxford Resource Partners, LP	0.057
47. Solar Sources, Inc.	0.028
48. Trapper Mining Inc.	0.023
49. Vigo Coal Company, Inc. <sup>1/</sup>	0.013
50. Oxbow Mining, LLC	0.009
Booth Energy Group	N/A
Cliffs Natural Resources Inc.	N/A
Dana Mining Company (GenPower Holdings LP)	N/A
Knight Hawk Coal, LLC (Bunn)	N/A
PBS Coals, Inc. (Severstal Oao)	N/A
Justice Companies	N/A

Notes: 2013 data compiled from 2014 NMA survey of major producers. May not be all-inclusive.

Any companies not included in this listing are invited to submit data for the next edition.

\* U.S. Government total is an NMA calculation based on federal ownership of about one-third of the United States' coal resources (Bureau of Land Management, 1993) and estimated recoverable reserves of 258 billion short tons (Energy Information Administration, 2012). N/A = Not Available.

Reserves are estimated proven & probable. <sup>1/</sup> Company website and other public sources. <sup>2/</sup> Excludes Bowie Mine