Arch Coal, Inc.

2003 Annual Report and 2004 Proxy

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We are Ready. Arch Coal, Inc.

DEAR FELLOW SHAREHOLDER:

"Coal is Back" IS THE THEME OF THIS ANNUAL REPORT. IN REALITY, IT NEVER WENT AWAY. ON THE CONTRARY, COAL HAS SERVED AS THE VERY BACKBONE OF AMERICA'S ELECTRIC POWER SYSTEM FOR DECADES.

STEVEN F. LEER

President and CEO

So why the title? Because despite our tremendous reliance on this remarkable fuel, coal has until recently been viewed as a fuel of the past. A relic. A stopgap until something better came along.

Today, that perception is changing, and changing rapidly. In fact, there is a growing recognition that we need coal now more than ever. As competing fuels struggle just to maintain current levels of output, coal is poised to shoulder even more of the load in U.S. energy markets in the years ahead.

To paraphrase Mark Twain, the rumors of coal's demise have been greatly exaggerated. Coal is indeed back—back in the public eye, back in vogue among investors, and back in America's future plans.

WHAT'S BEHIND THIS RENAISSANCE?

There is no great secret to coal's success. Electricity is a pervasive presence in our lives, and it's becoming more so every day. If the last century was the Age of Oil, then the current century is rapidly becoming the Age of the Electron. Coal may prove to be the ideal fuel source for such an age.

Coal can already claim many advantages detailed elsewhere in this report—cost-effectiveness, abundance, reliability, and a proven track record as an increasingly clean energy source. Just as noteworthy is the fact that these advantages are growing even more pronounced. In 2003, a resurgent U.S. economy helped boost power demand—and it was coal that captured the lion's share of the growth. Meanwhile, coal's higher-profile competition, nuclear and natural gas, actually saw output fall during 2003.

The U.S. Department of Energy projects that U.S. power demand will continue to climb steadily—rising by nearly 50% over the course of the next two decades. For coal, the DOE sees an equally bright future, as this indispensable fuel captures an increasing share of the market over time.

WE ARE READY

I believe we have created a special coal company—one uniquely equipped to compete and grow in such a dynamic environment. We have amassed a large and highly strategic reserve base that can support future mining for decades. We have carved out leading positions in the nation's three principal low-sulfur coal basins. We have built a portfolio of large, modern mines that rank among the most productive in their supply regions. And we have assembled a talented and motivated workforce that has made Arch an industry leader in safety and environmental performance year after year.

PROGRESS ON MANY FRONTS

We regard these attributes as a highly strategic platform for future growth. Throughout 2003, we pursued a careful plan to strengthen this foundation still further by enhancing our financial flexibility. We reduced our overall leverage, built a healthy cash balance, and made further headway in our ongoing effort to unlock the value of our equity investment in Natural Resource Partners (NRP).

The first of these moves occurred in February 2003, when we raised $139 million through a preferred stock offering and used the proceeds to pay down debt and boost liquidity. Then in June we locked in a favorable interest rate on the remainder of our debt for the next 10 years when our Arch Western subsidiary issued $700 million in 6.75% senior notes. Finally, in late December, we raised another $115 million through the sale of a portion of our stake in Natural Resource Partners.

As you may recall, we joined in the creation of NRP in October 2002 as a vehicle for monetizing certain non-strategic coal reserves that we viewed as greatly undervalued on our balance sheet. At that time, Arch contributed assets with a book value of $85 million to NRP in exchange for equity in the company. To date, we have raised a total of nearly $150 million through the sale of a portion of our stake in NRP—and we continue to hold 2.9 million common units valued at more than $100 million at the time of this writing.

> Coal is indeed back—
> back in the public eye,
> back in vogue among investors, and
> back in America's future plans.

As a result of these and other efforts, Arch is now in its strongest financial position in recent years. In the five years since acquiring our western assets, we have paid down a total of $664 million in debt. Our total debt as a percentage of capitalization has declined from a high of 84% to just over 50% today. Moreover, we have cash on hand in excess of $200 million. In short, we are poised for careful and deliberate growth in a market bursting with opportunity.

STRONG RETURNS

I'm pleased to say that investors in Arch Coal were rewarded for their patience in 2003. For much of the past two years, an extended stockpile correction at the nation's coal-based power plants had masked very attractive market fundamentals.

But late in 2003, with utility stockpiles approaching more normal levels, coal markets began to rally—and rally strongly. Spot prices for eastern low-sulfur coal increased more than 50% in a period of just a few months. The price of metallurgical coal—a small but important niche product used in steel production—surpassed even that increase, reaching levels not seen in decades. Other basins experienced solid gains as well.

Naturally, such strong market dynamics are spurring renewed enthusiasm about Arch's stock. During calendar 2003, we achieved a total return to shareholders of 44%—an impressive figure by any measure.

SEIZING THE DAY

Given a resurgent U.S. economy, high natural gas prices, and a strong international coal market, we expect continued robust demand for coal that should support attractive prices for some time to come.

Arch has placed itself in an excellent position to capitalize on this renewed vigor in the marketplace. While we have only a small amount of uncommitted coal available for sale in 2004, we entered the year with roughly 35% and 50% of our expected production in 2005 and 2006, respectively, still to be priced. That means that if the current market dynamics persist, Arch could experience additional top line revenue growth in each of the next two years. The implications for our bottom line results could be great.

WE ARE NOT SATISFIED

In recent years, Arch has repeatedly ranked as the most productive operator in the nation's two largest coal basins—the Powder River Basin and Central Appalachia. However, like other producers, we have grappled in recent quarters with higher costs in areas such as health care, fuel, insurance, bonding, and permitting, particularly at our eastern operations.

Controlling costs is a passion at Arch Coal, and we take such increases personally—even when the cost drivers are external in nature. As a result, we are intensifying our efforts to offset such cost increases with cost savings and productivity gains elsewhere.

In 2004, we will relentlessly pursue opportunities across all of our mines to extend best practices; analyze major cost drivers and bottlenecks; implement process improvements; apply cutting-edge maintenance programs; and invest in advanced technologies where true returns are possible. Our goal is unchanged—to build on Arch's position as one of the industry's lowest-cost producers.

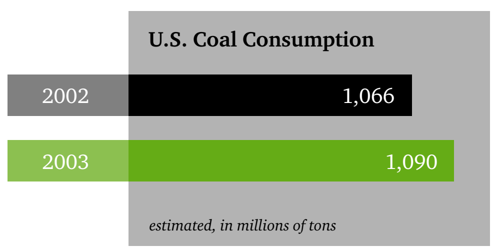
COMPETING FUELS FACE OBSTACLES TO GROWTH

Coal is likely to figure increasingly in America's power generation plans for two reasons: it offers unique advantages as a fuel for electric generation, and its competition faces serious barriers to future growth.

Consider the challenges confronting nuclear power, the source of roughly 20% of America's electricity supply. After years of steadily increasing output, America's 104 nuclear plants are now operating at very close to capacity. In fact, with utilities planning to replace aging reactor vessel heads at nearly a third of the nuclear fleet over the next five years, just maintaining recent levels of performance may prove to be a challenge.

Natural gas, which supplies 17% of America's electricity needs, faces a different challenge. During the past four years, utilities have added nearly 150,000 megawatts of new gas-fired capacity. But all this new capacity came on line just as the perceived "natural gas bubble" gave way to a new reality—a declining North American resource base. Since that time, gas prices have soared, making natural gas a fuel of last resort for many utilities.

Other fuels face similar constraints. The nation has not added a major hydro dam in years, and competition for water at existing facilities is fierce. America's aging oil-fired capacity is prohibitively expensive and rapidly becoming obsolete. Even with high levels of investment, renewables will remain expensive and play only a niche role for several decades to come.



TOTAL COAL CONSUMPTION WAS UP AN ESTIMATED 2.2% IN 2003.

Source: EIA

COAL FACES NO SUCH BARRIERS

That leaves coal to do most of the heavy lifting in U.S. power markets. Fortunately, the industry appears poised to do just that. In stark contrast to the nuclear system, America's coal-based generating plants operated at approximately 70% of capacity in 2003. Over time, we believe that the existing coal-based fleet can achieve a utilization level of close to 85%. That equates to an increase in coal consumption of more than 200 million tons. Such excess capacity is the best available option to satisfy new power demand.

But taking advantage of excess capacity is not the only path to increased coal consumption. Over the course of the next 20 years, the DOE projects that more than 100,000 megawatts of new coal-based power generation will be constructed.

In fact, plans for nearly that much have been announced already. While not all the projects currently being contemplated are likely to be built, it now seems clear that some of the projects are reaching critical mass. The first of these capacity additions is scheduled to come on line in 2005, and many more projects are beginning to gain momentum.

CREATING FUTURE VALUE

Arch plans to create value through a carefully laid plan for increased profitability and growth. In the months and years ahead, we will:

- Focus on controlling costs and registering productivity gains across the entire corporation, strengthening our existing position as a low-cost producer.
- Build on our reputation as a reliable, innovative and customer-oriented supplier to the nation's largest electric utilities.
- Further strengthen our position as an industry leader in safety and environmental stewardship, and use this commitment as the foundation for our future success.
- Capitalize on our large and highly strategic reserve base by investing in internal growth opportunities—including promising idle reserves in both the East and West.
- Evaluate acquisitions that strengthen or complement Arch's leading positions in key low-sulfur coal basins.

GROWTH THROUGH ACQUISITION

In May 2003, Arch announced plans to acquire the nation's seventh largest coal producer, Triton Coal Company. That transaction is currently under review by the Federal Trade Commission. Of course, Arch already has a strong existing position in the Powder River Basin, and we are excited about our future prospects. Our debt is at its lowest level in recent years and we have cash on hand to finance future growth. We believe the current market environment will create many exciting opportunities deserving of our investment and future discretionary cash flow.

> In 2003, we reduced our overall leverage, built a healthy cash balance, and made further headway in our ongoing effort to unlock the value of our equity investment in Natural Resource Partners.

BOARD RETIREMENT

On a personal note, we will be saying goodbye in April to James L. Parker, one of Arch's longest-standing directors, who has elected to retire from the board after nine years of service. Jim has played a key role in our growth and success over the years. We will miss his leadership and wise counsel, and we wish him the very best in his retirement.

LOOKING AHEAD

Every move we've made in recent years has been in preparation for just this moment in time. A moment when the rest of the nation begins to see coal in a new way. A moment when policymakers stop looking at coal as a fuel of the past, and start to focus on its inherent advantages as a fuel of the future. A moment when utilities begin to lay the foundation for a new fleet of coal-based power plants.

In 2004, we will work tirelessly to enhance Arch's position still further, while taking full advantage of the opportunities emerging in the current marketplace. We are striving to be the industry's premier operator, which to us means achieving the strongest financial results, operating the safest mines and acting as the best stewards of the environment. If we can hit the mark in all three of these crucial areas of performance, I believe that we will succeed in delivering superior long-term value to you, our shareholders.

Sincerely,

Steven F. Leer
President and CEO
Arch Coal, Inc.
March 3, 2004

Coal is Back. We are Ready.

AMERICA WILL NEED MORE POWER.

The economy is gaining strength.

With each passing year, America becomes increasingly electrified. Businesses grow, technologies advance, incomes rise—and power demand is pushed ever higher. After several years of sluggish economic activity, power demand is once again climbing. The U.S. Department of Energy expects U.S. power needs to increase by nearly 50% over the course of the next two decades. That's good news for coal, which is the fuel for more than half the nation's electricity.

Why coal? For starters, it is highly cost-effective, at just one-third the cost of natural gas per kilowatt-hour of generation. It is also the energy resource that America has in greatest abundance, comprising fully 95% of known U.S. fossil fuel reserves. And, it is increasingly clean, with per-unit emissions down 75% since 1970. In short, our reliance on coal makes America wealthier, more secure, and more competitive globally, while enabling us to achieve our environmental objectives.

In fact, coal's advantages are becoming even more pronounced. That's because competing fuels face a host of challenges that limit their capacity for growth. The nation's aging nuclear fleet is operating at near its effective limit and may struggle to maintain current levels of output. U.S. natural gas prices have soared in response to declining North American production. Hydroelectric facilities face increasingly stiff competition for water resources, oil is prohibitively expensive, and wind and solar power are expected to remain costly niche contributors for decades to come.

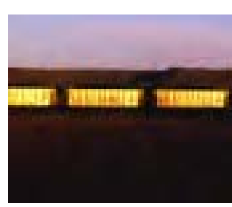
COAL'S ADVANTAGES ARE COMPELLING.

Competing fuels can't keep pace.

Fortunately, coal is well equipped to take up the slack. Last year, coal's share of power markets climbed a full percentage point to 51%. Furthermore, the infrastructure is in place to support additional growth in the future. In 2003, the existing fleet of coal-based power plants operated at roughly 70% of capacity, well below its theoretical limit. We believe that a utilization rate of around 85% is achievable. Such an increase would boost total coal demand by an estimated 200 million tons.

In addition, U.S. power generators are making plans to construct the next generation of coal-based power plants—plants that will be cleaner and more competitive than ever before. Utilities have announced plans to add as much as 100,000 megawatts of new capacity in coming years. That's a 33% increase in the size of America's coal-based fleet.

But coal demand is on the rise in the rest of the world, too. The torrid rate of economic growth in China, strong demand in Europe, and a rejuvenated steel industry have helped boost international coal prices to their highest levels in years. That market strength is likely to boost U.S. export volumes in 2004 and beyond.



U.S. coal demand is expected to grow by **nearly 50%** over the next two decades.

ARCH IS UNIQUELY EQUIPPED TO COMPETE.

We have prepared for this moment.

With extensive reserves in each of the nation's three major low-sulfur coal basins, Arch is uniquely positioned to compete in this growing marketplace. In recent years, low-sulfur coal has captured virtually all new demand growth. Demand for the very lowest sulfur coal—the kind that meets the most stringent clean air standards without the application of scrubbing technology—has grown at an annual clip of 6%. That trend is likely to continue. At present, only one quarter of eastern generating capacity is outfitted with scrubbers, and few additions are planned before the end of the decade. Furthermore, the price of so-called emissions allowances—which can be used in conjunction with high-sulfur coal in lieu of scrubbing—has doubled in the past 12 months. As a result, Arch's low-sulfur coal production should continue to capture a premium in the marketplace.

Arch produces **100% low-sulfur coal**. Low-sulfur coals are capturing nearly all new demand growth.

We have assembled a powerful set of assets—arguably the industry's premier low-sulfur reserve base, large modern mines, and leading positions in the most strategic supply regions. We also boast a highly effective workforce—one that has made Arch the productivity leader in its core supply regions and helped create a culture of safety and environmental stewardship unsurpassed in the industry.

ARCH HAS THE FINANCIAL WHEREWITHAL TO GROW.

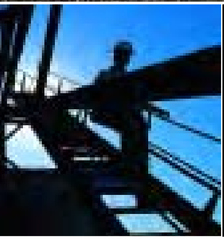
We boast exciting opportunities for expansion.

We plan to build on this superb position in the years ahead, and we have the financial wherewithal to do so. Since the end of 2000, Arch has reduced its total debt as a percentage of total capitalization by 33 points, to roughly 51% at year-end. In addition, we have more than $200 million of cash on hand that can fund future growth.

We expect much of that growth to be organic. Arch's 2.9-billion-ton reserve base creates exciting opportunities for expansion. In fact, Arch boasts two properties that rank among the industry's very best inactive reserve blocks—one in the East and one in the West. In southern West Virginia, we have more than 100 million tons of contiguous reserves that we are currently seeking to permit. In time, we expect these reserves to support a highly efficient longwall operation and a low-cost surface mine. In the Powder River Basin, our idle Coal Creek mine has much of the infrastructure already in place to support an 18-million-ton-per-year surface mine as demand for such coal grows.

TOTAL DEBT (IN MILLIONS)

Furthermore, we will consider reserve additions and acquisitions that will complement Arch's already strong positions in our core operating regions. In 2003, Arch made just such an acquisition in southern West Virginia, adding 49 million tons of reserves adjacent to the Campbells Creek operation.



ARCH IS A CAREFUL STEWARD OF THE LAND.

We operate some of the industry's safest mines.

Arch has made excellence in safety and environmental stewardship an organizational hallmark. In fact, we regard such excellence as the foundation of our future success. Year after year, Arch's operating subsidiaries rank in the industry's upper echelon of performance in these key areas. In 2003, our safety record was more than 50% better than the coal industry average.

Arch has also received recognition for reclaiming the land to a natural and productive state after mining. For the third year in a row, an Arch subsidiary was honored with the state of West Virginia's top reclamation award in 2003. Other subsidiaries claimed impressive environmental honors as well, including the Wetlands West Virginia Award from Ducks Unlimited, and two awards for reclamation excellence from the National Association of State Land Reclamationists.

When mining is complete, Arch seeks to make former mine lands into assets for the communities in which we operate. At present, former Arch mine lands support an 18-hole championship golf course, a wood products manufacturing facility, a large recreational lake, a fish hatchery and a new addition to a state park. On other former mine sites, we have planted well over a million trees and created more than 200 acres of wetlands that are a boon to diverse wildlife populations. At our western mines, reclaimed lands support large herds of elk, mule deer and pronghorn antelope.

In the years ahead, Arch will continue to apply the most advanced reclamation techniques as we seek to transform mined lands into valuable resources for future generations.

FINANCIAL SUMMARY

	2003	2002
Tons sold	100.6	106.7
Revenues	1,435.5	1,473.6
Income from operations	40.4	29.3
Earnings (loss) per common share	.19	(.05)

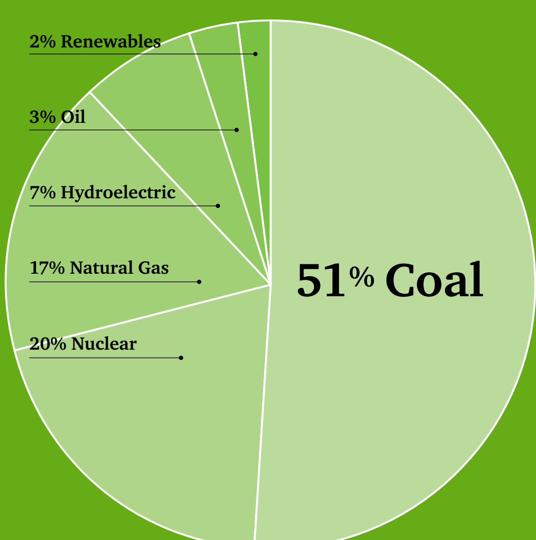
	At 12/31/03	At 12/31/02
Total debt	$706.4	$747.3
Debt to total capitalization	50.7%	58.3%

Note: In millions, except share data and debt to total capitalization; does not include tonnage or revenues from 65%-owned Canyon Fuel Company

FINANCIAL SUMMARY AND INDUSTRY DATA

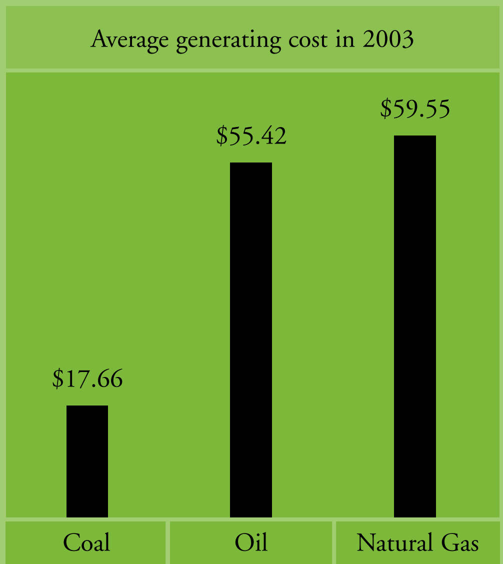
FUEL SHARES FOR ELECTRIC GENERATION

Coal is the dominant fuel source for electric generation in the United States.



COMPETING FUEL PRICES

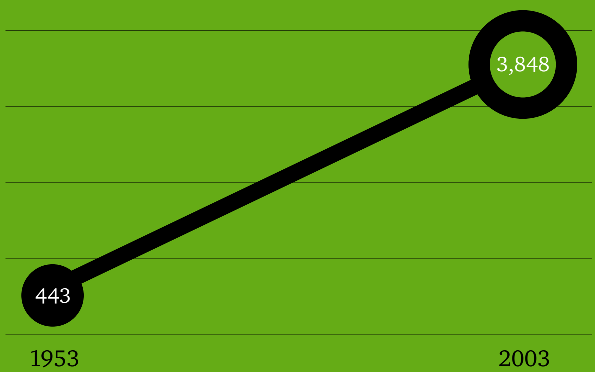
Coal is the lowest-cost source for additional electrons.



(in dollars per megawatt-hour)

ELECTRICITY DEMAND

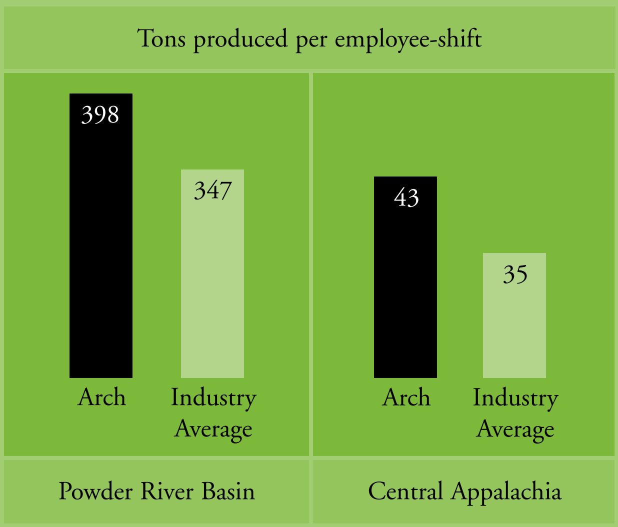
The U.S. is becoming more and more dependent on electricity.



(in billions of kilowatt-hours)

PRODUCTIVITY

Arch's productivity far exceeds the industry average.



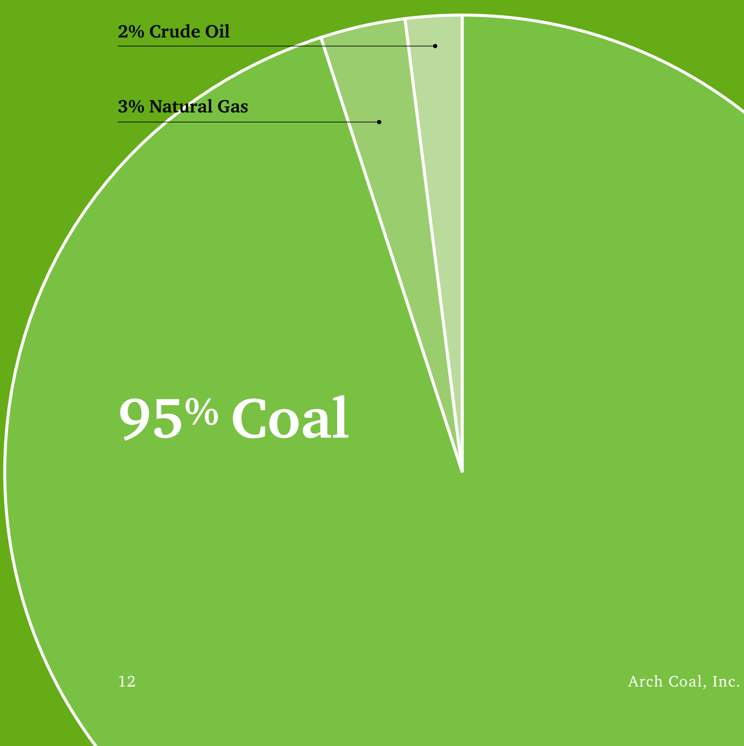
(for the twelve months ended Sept. 30, 2003)

INDUSTRY DATA

Sources: EEI, EIA, MSHA, Platts

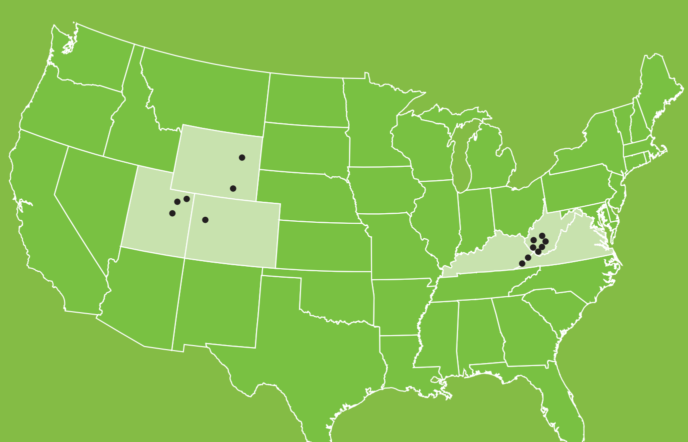
U.S. ENERGY RESOURCES

Coal is America's most abundant domestic fuel source.



EASTERN AND WESTERN OPERATIONS

From Arch's national network of mines, we can ship coal cost-competitively to most major coal-based power plants in the United States.



BOARD OF DIRECTORS

JAMES R. BOYD (a)(b)(c)
Chairman of the Board, Arch Coal, Inc.; Retired Senior Vice President and Group Operating Officer, Ashland Inc.

FRANK M. BURKE (a)*(d)
Chairman, CEO and Managing Partner, Burke Mayborn Company, Ltd.

DOUGLAS H. HUNT (c)(d)*
Director of Acquisitions, Petro-Hunt, LLC

STEVEN F. LEER (c)
President and Chief Executive Officer, Arch Coal, Inc.

THOMAS A. LOCKHART (c)(d)
Member, Wyoming State House of Representatives

JAMES L. PARKER
President, Hunt Coal Corporation and Retired President, Hunt Petroleum Corporation

A. MICHAEL PERRY (a)(b)*
Retired Chairman of the Board, Bank One, West Virginia, N.A.

ROBERT G. POTTER (b)(d)
Retired Chairman and CEO, Solutia Inc.

THEODORE D. SANDS (c)*(d)
President, HAAS Capital, LLC; Retired Managing Director, Investment Banking, For the Global Metals/Mining Group, Merrill Lynch and Co.

(a) Audit Committee
(b) Nominating and Corporate Governance Committee
(c) Finance Committee
(d) Personnel and Compensation Committee

* Committee Chairman

SENIOR OFFICERS

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President and Chief Executive Officer

JOHN W. EAVES
Executive Vice President and Chief Operating Officer

KENNETH G. WOODRING
Executive Vice President, Mining Operations

C. HENRY BESTEN
Senior Vice President, Strategic Development

ROBERT J. MESSEY
Senior Vice President and Chief Financial Officer

BRADLEY M. ALLBRITTEN
Vice President, Marketing

SHEILA B. FELDMAN
Vice President, Human Resources

ROBERT G. JONES
Vice President—Law, General Counsel and Secretary

DAVID B. PEUGH
Vice President, Business Development

OTHER OFFICERS

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Vice President and Chief Information Officer

JAMES E. FLORCZAK
Treasurer

BENNETT K. HATFIELD
Vice President, Eastern Operations

JOHN W. LORSON
Controller

ROBERT W. SHANKS
Vice President, Western Operations, and President, Arch Western Resources, LLC

DECK S. SLONE
Vice President, Investor Relations and Public Affairs

C. DAVID STEELE
Vice President, Tax

JOHN ZIEGLER, JR.
Director, Internal Audit

Coal is Back. We are Ready.

DESIGN: www.kolbrenerdesign.com

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Coal is the source fuel for more than half the electricity Americans use each day. Arch Coal is the nation's second largest coal producer. Its core business is providing U.S. power producers with clean-burning, low-sulfur coal for power generation. Through mining operations in both the eastern and western United States, Arch supplies the fuel for approximately 6% of the nation's electricity. The company also excels at operating safe mines and reclaiming the land to a natural and productive state once mining is complete. Arch Coal maintains its headquarters in St. Louis and its stock is traded on the New York Stock Exchange under the ticker symbol ACI.