



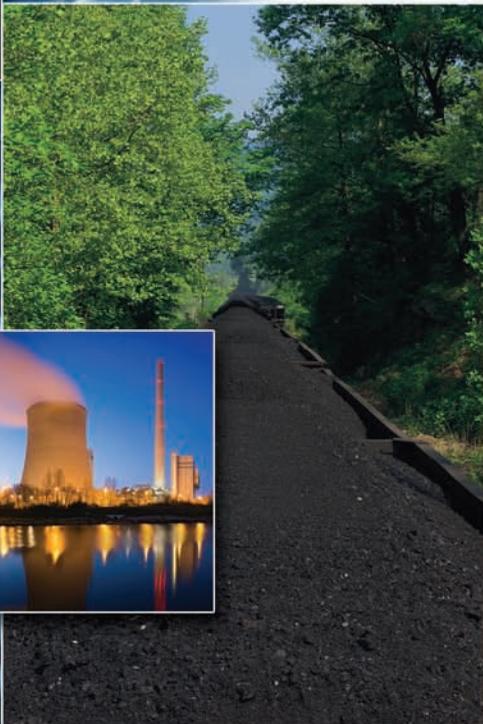
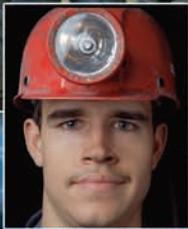
VIEWS & VISIONS

A publication of Bowles Rice McDavid Graff & Love LLP

Summer 2010

Coal:

Powering Our Future!



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Coal: Powering Our Future

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Coal: Powering Our Future

Thomas A. Heywood
Bowles Rice McDavid Graff & Love LLP



FROM OUR MANAGING PARTNER

Tom Heywood is Managing Partner of Bowles Rice and a former chief of staff to the Honorable Gaston Caperton, Governor of the State of West Virginia. He has significant experience in health care, corporate, finance and commercial law, and is recognized as one of the “Best Lawyers in America.”

Mr. Heywood is active in the community and in various West Virginia business and trade associations. He serves on the boards of many charitable organizations, including Vision Shared, Imagine West Virginia, Discover the Real West Virginia Foundation, Thomas Memorial Hospital, West Virginia University Hospitals, the Clay Center and the Kanawha County Library Foundation.

Mr. Heywood has recently been recognized for his many contributions to the legal profession and the community by being named a Fellow of the American Bar Association and a recipient of the 2010 “Who’s Who in West Virginia Business” award.

There is much at stake in the current discussion and debate about the future of coal: our nation’s energy independence and energy security; the environment; jobs; the economy of our region; and the opportunity for West Virginia, Kentucky and Appalachia to become and remain a world leader in energy research, development, innovation and investment.

Regarding the world’s energy future, there is much agreement:

- Projected population growth and rapidly increasing industrialization and energy consumption around the globe will lead to enormous growth in energy demand in the years ahead.
- Even assuming significant improvements in energy conservation and efficiency, and assuming development and deployment of a large portfolio of alternative energy resources, the world cannot begin to meet its projected energy needs over the coming decades without coal and other fossil fuels.
- Coal and other fossil fuels are highly efficient compared to other energy sources in converting photons emitted from the sun into usable human power.
- Nations that have access to cost-efficient power will be able to shape their own futures, while those without such access will be constrained in terms of opportunity and prosperity.
- In the future, considerations of the environment and human health and safety will permanently play a more prominent role in the energy equation than they have in the past.

Despite agreement on these fundamental issues, enormous disagreement exists about many critical matters, including:

- How and to what extent does human activity contribute to the normal, historical cycles of global warming and cooling?
- If the release of carbon dioxide into the atmosphere from fossil fuel combustion contributes materially to global warming or climate change, what should be done about it?
- Is there an acceptable – and achievable – balance between our energy needs and our desire to protect and preserve the environment?

These and many other questions will dominate our discussion for years to come. In this edition of *Views & Visions*, we are pleased to present the thoughts of some of the most knowledgeable and informed leaders from across our region and nation on these vital issues. I wish to thank all of these men and women for their leadership and contributions in respect of the challenging energy issues we face.

I believe we owe it to ourselves, our children and our grandchildren to inform ourselves as best we can on these important issues. I also believe that we should approach all of these issues with a heavy dose of humility, acknowledging the limits of our current knowledge and understanding, and recognizing that future discoveries, innovations and inventions may eliminate or transform many “givens” in the current world energy equation, creating new opportunities and options for us all.

I look forward to working with you in the years ahead to assure that Appalachian coal finds its place at the table in the new energy equation, and to find paths forward that create new opportunities, wealth and prosperity for our region, nation and world, while protecting and preserving the planet that sustains us all. ▽



Coal Must Embrace the Future

The Honorable Robert C. Byrd, United States Senator
West Virginia

Senator Robert C. Byrd has served the people of West Virginia for more than 51 years.

On June 12, 2006, Senator Byrd became the longest serving U.S. Senator in U.S. history, and in November 2006 he was elected to a ninth full term in the Senate. On November 18, 2009, Senator Byrd became the longest serving Member of Congress.

Senator Byrd is the President pro tempore and the highest ranking Senator in the majority party. He serves as the senior member of the powerful Senate Appropriations Committee and is the Chairman of the Senate Appropriations Subcommittee on Homeland Security. Senator Byrd also serves on the Senate Budget, Armed Services, and Rules and Administration Committees.

Senator Byrd is a graduate of Marshall University and earned his law degree from American University in 1963.

For more than 100 years, coal has been the backbone of the Appalachian economy. Even today, the economies of more than 20 states depend to some degree on the mining of coal. About half of all the electricity generated in America and about one-quarter of all the energy consumed globally is generated by coal.

Change is no stranger to the coal industry. Think of the huge changes which came with the onset of the Machine Age in the late 1800s. Mechanization has increased coal production and revenues but also has eliminated jobs, hurting the economies of coal communities. In 1979 there were 62,500 coal miners in the Mountain State. Today there are about 22,000. In recent years West Virginia has seen record high coal production and record low coal employment.

And change is undeniably upon the coal industry again. The increased use of mountaintop removal mining means that fewer miners are needed to meet company production goals. Meanwhile, the remaining Central Appalachian coal seams are becoming thinner and more costly to mine. Mountaintop removal mining, a declining national demand for energy, rising mining costs and erratic spot market prices all add up to fewer jobs in the coal fields.

These are real problems. They affect real people. And West Virginia's elected officials are rightly concerned about jobs and the economic impact on local communities. I share those concerns. But the time has come to have an open and honest dialogue about coal's future in West Virginia.

Let's speak the truth. The most important factor in maintaining coal-related jobs is demand for coal. Scapegoating and stoking fear among workers over the permitting process is counter-productive.

Coal companies want a large stockpile of permits in their back pockets because that implies stability to potential investors. But when coal industry representatives stir up public anger toward federal regulatory agencies, it can damage the state's ability to work with those agencies to West Virginia's benefit. This, in turn, may create the perception of ineffectiveness within the industry, which can drive potential investors away.

Let's speak a little more truth here. No deliberate effort to do away with the coal industry could ever succeed in Washington because there is no available alternative energy supply that could immediately supplant the use of coal for base load power generation in America. That is a stubborn fact that vexes some in the environmental community, but it is reality.

It is also a reality that the practice of mountaintop removal mining has a diminishing constituency in Washington. It is not a widespread method of mining, with its use confined to only three states. Most members of Congress, like most Americans, oppose the practice, and we may not yet fully understand the effects of mountaintop removal mining on the health of our citizens. West Virginians may demonstrate anger toward the Environmental Protection Agency (EPA) over mountaintop removal mining, but we risk the very probable consequence of shouting ourselves out of any productive dialogue with EPA and our adversaries in the Congress.





Some even suggested that coal state representatives in Washington should have blocked any advancement of national health care reform legislation until the coal industry's demands were met by the EPA. I believe that the notion of holding the health care of over 300 million Americans hostage in exchange for a handful of coal permits is beyond foolish; it is morally indefensible. It is a non-starter and puts the entire state of West Virginia and the coal industry in a terrible light.

To be part of any solution, one must first acknowledge a problem. To deny the mounting science of climate change is to stick our heads in the sand and say "deal me out." West Virginia would be much smarter to stay at the table.

The 20 coal-producing states together hold some powerful political cards. We can have a part in shaping energy policy, but we must be honest brokers if we have any prayer of influencing coal policy on looming issues important to the future of coal, like hazardous air pollutants, climate change and federal dollars for investments in clean coal technology.

Most people understand that America cannot meet its current energy needs without coal, but there is strong bipartisan opposition in Congress to the mountaintop removal method of mining it. We have our work cut out for us in finding a prudent

and profitable middle ground – but we will not reach it by using fear mongering, grandstanding and outrage as a strategy. As your United States Senator, I must represent the opinions and the best interests of the entire Mountain State, not just those of coal operators and southern coalfield residents who may be strident supporters of mountaintop removal mining.

I have spent the past six months working with a group of coal state Democrats in the Senate, led by West Virginia native Senator Tom Carper (D-Del.), drafting provisions to assist the coal industry in more easily transitioning to a lower-carbon economy. These include increasing funding for clean coal projects and easing emission standards and timelines, setting aside billions of dollars for coal plants that install new technology and continue using coal. These are among the achievable ways coal can continue its major role in our national energy portfolio. It is the best way to step up to the challenge and help lead change.

The truth is that some form of climate legislation will likely become public policy because most American voters want a healthier environment. Major coal-fired power plants and coal operators operating in West Virginia have wisely already embraced this reality and are making significant investments to prepare.

The future of coal and, indeed, of our

total energy picture, lies in change and innovation. In fact, the future of American industrial power and our economic ability to compete globally depends on our ability to advance energy technology.

The greatest threats to the future of coal do not come from possible constraints on mountaintop removal mining or other environmental regulations, but rather from rigid mindsets, depleting coal reserves and the declining demand for coal as more power plants begin shifting to biomass and natural gas as a way to reduce emissions.

Fortunately, West Virginia has a running head-start as an innovator. Low-carbon and renewable energy projects are already under development in West Virginia, including: America's first integrated carbon capture and sequestration project on a conventional coal-fired power plant in Mason County; the largest wind power facility in the eastern United States; a bio-fuel refinery in Nitro; three large wood pellet plants in Fayette, Randolph, and Gilmer Counties; and major dams capable of generating substantial electricity.

Change has been a constant throughout the history of our coal industry. West Virginians can choose to anticipate change and adapt to it, or resist and be overrun by it. One thing is clear: The time has arrived for the people of the Mountain State to think long and hard about which course they want to choose. ▽



Carbon Capture and Storage: Expensive Pipedream or Salvation for West Virginia Coal?

Dr. Richard A. Bajura, Director
National Research Center for Coal and Energy
West Virginia University

Dr. Richard Bajura serves as director of the National Research Center for Coal and Energy at West Virginia University. For the past 26 years, Dr. Bajura has developed programs that team the research faculty across WVU's colleges and departments with other energy and environmental experts nationwide.

Dr. Bajura is active with the American Society of Mechanical Engineers Energy Committee; a member of the National Coal Council; the Washington Coal Club; the Coal Utilization Research Council; the Pittsburgh Coal Conference Advisory Board; and the U.S. Department of Energy Fossil Energy Coal Programs Strategic Planning Committee. He is the current manager of the West Virginia State program for DOE Office of Experimental Program to Stimulate Competitive Research (EPSCoR).

Dr. Bajura has been a faculty member in WVU's Department of Mechanical and Aerospace Engineering since 1969. He holds bachelor's, master's and doctoral degrees in mechanical engineering from the University of Notre Dame.

Coal plays an important role in the economy of West Virginia and many Appalachian states because of the jobs and taxes that the mining industry provides. Coal also contributes to the nation's economy – coal generates half of the nation's electricity at affordable prices. However, coal combustion produces higher levels of carbon dioxide (CO₂) emissions than other energy sources. With attention focused on the effect of increasing levels of atmospheric CO₂ on global climate change, these emissions present a major challenge to the coal industry. Coal-fired power plants are the largest contributor to U.S. manmade CO₂ emissions and coal use accounts for 40 percent of global CO₂ emissions.

Proposed climate change regulations would place limits on CO₂ emissions. The two primary approaches to reduce CO₂ emissions from coal-fired power plants are:

- Curtail coal use – an obvious threat to the economy in coal producing states such as West Virginia.
- Use carbon capture and storage (CCS) technologies at coal plants.

Carbon Capture and Storage

The CCS technology consists of three steps in which CO₂ is sequentially:

- separated from other gases in the exhaust stream at a power plant or industrial facility (some CO₂ separation processes use technologies similar to the sulfur dioxide (SO₂) scrubbers currently being installed at coal plants, but at a much larger scale and energy cost of operation);
- compressed to high pressures to achieve a liquid-like state and transported by pipeline to an injection site; and

- injected into a deep geologic formation where it can be indefinitely stored (or sequestered).

There are presently no integrated CCS systems operating at full commercial scale on coal-fueled power plants. However, components of the CCS process are already routinely deployed in other types of commercial processes. For example, natural gas processing plants produce pipeline-quality natural gas by separating CO₂ from other gases. And in oil fields, CO₂ is injected into oil reservoirs to enhance oil production.

Numerous projects are underway worldwide to demonstrate all or part of the CCS technology. Among them is Sleipner, a Norwegian project which separates CO₂ from a natural gas stream and injects it into a geologic formation under the North Sea. Sleipner has been operating as a commercial project since 2000. Data from Sleipner and other CCS demonstration projects are showing that CO₂ can be safely stored in the earth without significant leakage.

West Virginia's Role in CCS Development

West Virginia is on the cutting edge of CCS development and deployment. Several West Virginia CCS projects are underway or are being planned:

- In 2009, American Electric Power (AEP) began operating the U.S.'s first fully integrated CCS technology validation project based on ammonia absorption technology at its Mountaineer Plant in West Virginia. This project is designed to remove 90 percent of the CO₂ from a slipstream equivalent to a 20 megawatt electric (MWe) portion of the plant's flue gas. The captured CO₂ is compressed and injected into rock layers 1.5 miles

beneath the surface. Cap rock keeps the CO₂ from moving upward. Monitoring wells help verify and evaluate the conditions in the storage layers as CO₂ is injected.

- The U.S. Department of Energy (DOE) awarded AEP federal stimulus funding for 50 percent of the cost (up to \$334 million) for building a commercial-scale CCS installation at Mountaineer. This project is being designed to remove 90 percent of the CO₂ from a 235 MWe portion of the power plant's flue gas. Project operation will start in 2015.
- During its 2009 session, the West Virginia Legislature established the Carbon Dioxide Sequestration Working Group to study the scientific, technical, legal and regulatory issues associated with CO₂ storage in geologic formations.
- The U.S. DOE's National Energy Technology Laboratory (NETL), located in Morgantown and Pittsburgh, implements and manages the DOE's national program of CCS research and demonstration projects.
- The National Research Center for Coal and Energy (NRCCE) at West Virginia University (WVU) participates in several CCS projects. Among them is NRCCE's U.S. China Energy Center. This center is working with China's Shenhua Group to evaluate the use of CCS at the world's first commercial direct coal liquefaction plant built in China at a cost of about \$1.5 billion.
- Researchers from CONSOL Energy, WVU and NETL are collaborating on a pilot test being conducted in Marshall County, West Virginia, to evaluate enhanced coalbed methane (CBM) recovery and simultaneous sequestration of 20,000 tons of CO₂ in an unminable portion of the Upper Freeport coal seam.

Hurdles to CCS Deployment

Widespread deployment of CCS faces two significant hurdles. First, currently available technology for CCS is costly. Separating CO₂ from other flue gas components in a typical pulverized coal boiler is about 80 percent of the total cost of capturing and storing carbon. According to the International Energy Agency (IEA), the use of present technologies for capturing CO₂ will increase the cost of electricity by 2-3 cents per kilowatt-hour (kWh). However, assuming reasonable technology advances, the IEA predicts the cost of CCS will come down. Year 2030 costs are projected to be one to two



cents per kWh, making CCS potentially one of the lower-cost options for low-carbon electricity.

Regulations are the second hurdle to CCS deployment. CCS deployment depends on a regulatory regime that places a financial cost on CO₂ emissions or requires a reduction in CO₂ emissions. CCS deployment also requires an appropriate regulatory system for

ensuring that CO₂ storage is safe and permanent.

Environmental Community Divided on CCS

Groups such as the Natural Resources Defense Foundation feel that coal use is inevitable – 30 states either mine coal or burn it for the majority of their electricity. Thus, these environmentalists support CCS because there would be much fewer CO₂ emissions with continued coal use. However, the Sierra Club and other environmental groups are more cautious about promoting CCS. They advocate the increased use of energy efficiency and renewable energy before CCS is considered. While both energy pathways have desirable features, the limited amount of money available to be devoted to overall energy research limits the rate at which we can achieve commercially viable technologies in either area.

Potential Impact of CCS on West Virginia

The successful deployment of CCS could spur increased investment in new coal-fueled power generation.

It also could maintain a significant role for coal in the U.S. energy mix, and allow the U.S. to dramatically reduce its power sector CO₂ emissions while leading the rest of the world in developing and deploying a critical

low-carbon technology. With plentiful coal reserves and suitable sites for CO₂ sequestration, West Virginia could ship its coal by “wire” to the East Coast, thereby providing low carbon, inexpensive electricity to an increased number of consumers. Enhanced coal production will create jobs and inexpensive electricity in the state could spur an expansion of our manufacturing base. CCS could be good for West Virginia! ▽



The Future of Coal in a Politically Constrained World

J. Thomas Lane, Partner
Bowles Rice McDavid Graff & Love, LLP

Tom Lane is a partner in the Bowles Rice Charleston office. He practices primarily in the areas of natural resources, coal, oil and gas, commercial real estate, zoning and land development. This practice ranges from complex transactions of mineral property and companies to complex litigation of natural resource issues. He also engages in lobbying and government relations, particularly on issues affecting the mineral industry.

As the former Robert T. Donley Adjunct Professor of Law at the West Virginia University College of Law, Mr. Lane taught a course in coal, oil and gas law (1986-2005). He compiled a teaching text on coal, oil and gas and has published numerous articles, including "Rights-of-Way and Easements in Mineral Development;" "Maintaining Oil and Gas Leases in Distressed Markets;" "West Virginia Ad Valorem Property Taxes;" "Fire in the Hole to Longwall Shears, Old Law Applied to New Technology;" and "Accounting for Cotenants, Trustees, Lessees, Trespassers and the Like."

Mr. Lane is trustee and past president of the Energy and Mineral Law Foundation and past president and chairman of the Executive Council of The West Virginia Bar Association. He is also the chairman of the Charleston Land Trust.

Mr. Lane has been recognized by Chambers USA, West Virginia Super Lawyers and Best Lawyers in America. In 2006, he was awarded the annual McClagherty Award by the Energy and Mineral Law Foundation for distinguished service to the natural resource profession.

While the scientific debate over global warming rages, the prevailing thought in Washington presumes that global warming actually does exist, and the current political actions seek a man-made solution. The rationale for these unprecedented actions is the acceptance by many of our political leaders of the premise that human activity, namely the emission of greenhouse gases, is the cause of global warming. From this base, they propose dramatic action to capture and sequester carbon dioxide (and other greenhouse gases) from power plants and to create a system of limits on emissions of greenhouse gases. The President has even articulated goals of eliminating coal as a power source as one means to remedy the perceived problem.

In 1975, the year I began the practice of law with Bowles Rice, scientists were completing research on global temperatures. The reports documented that, in relative terms, temperatures had significantly decreased over the previous 30 years, and projections were made that freezing weather would bring the earth to its knees. At the time, it seemed to me that we should burn all the coal possible just to warm the place up!

The ensuing 35 years are a mere nanosecond in the earth's climate history, so it is difficult to know, with certainty, whether scientists were correct 35 years ago in concluding the new ice age was imminent, or correct today in concluding that we are burning the place up.

I suppose you could call me a skeptic on global warming. My entire 35-year career has focused on teaching coal law and working with the coal industry, and it is painful to observe the efforts to eliminate this important American industry.

There is hope, however, for the future of coal, if you consider these five fundamental facts.

Fact 1: The population of the world will significantly increase. Some projections suggest that more than two billion additional people could inhabit the Earth by the year 2050.

Fact 2: Demand for electric power in the United States significantly increases each year. Experts project this increase at an average of three percent a year, which translates into 30 percent every 10 years – and there is no end in sight.



Fact 3: Developing countries – led by China and India – have introduced staggering new demands for power, steel and other raw products.

Fact 4: Metallurgical coal has been, and will remain, in high demand to support global steel needs.

Fact 5: Coal is the primary resource for more than 50 percent of electric power generated in the United States, and with projected increased demands for power, it will be virtually impossible to eliminate coal as a significant power source.

Widely accepted studies by the Electric Power Research Institute demonstrate that even if a concerted effort is made to reduce carbon dioxide emissions, which is possible, power sources like coal will remain a significant fuel source through 2030 and beyond.

In the abstract, the facts indicate a bright and robust future for coal. With growth in population, coupled with increased demands for power and steel, the mere suggestion of reducing or eliminating coal seems unattainable, at least if we want to continue to – as our friends at Walker Machinery say – “keep the lights on.”

The politics in Washington cloud this rosy picture. Let’s consider three actual and proposed constraints coming from the political process: refusal to issue mine permits, carbon sequestration and cap-and-trade legislation.

Mine permits are essential for both deep and surface mining. For at least 25 years, environmental groups have challenged the procedures for the issuance of mining permits under both the Surface Mining Act and the Clean Water Act. Much of this litigation has centered in West Virginia, and in almost every instance the federal district court has ruled at least partially in favor of the environmental groups, whose avowed purpose is to end coal mining. On appeal, the United States Court of Appeals for the Fourth Circuit

In response, however, the Obama administration implemented, through administrative fiat, a sea change in the issuance of permits. In 2009, an enhanced review procedure was implemented within the Environmental Protection Agency. The immediate and now lasting result is that virtually all coal mining permits are held within the deep bowels of the federal bureaucracy, causing some to question whether they will ever see the light of day. In one instance, Arch Coal’s permit for its Spruce No. 1 Mine in West Virginia was issued and then rescinded, and now seems to be on permanent hold.



This enhanced review procedure was taken without valid administrative rule-making procedures and will unlikely sustain a challenge. Nevertheless, it seems clear that the Environmental Protection Agency will slow an already tedious permitting process, require significant additional studies and investment, and make the process more cumbersome, although some permits ultimately will be issued.

has reversed these decisions, the result being an affirmation of the procedures under which permits have been issued. The most significant of these decisions was rendered in 2009, and coal industry experts concluded that the rules of the game were clarified and permits could be issued.

The second major political constraint on the future of coal is carbon sequestration. The focus of this effort involves coal-fired power plants which are large, but certainly not the largest, emitters of carbon dioxide. The political solution to reduce global warming is to build ancillary plants, which will capture the carbon dioxide

(continued on p. 64)



Our Future Remains with Coal

Cecil E. Roberts, Jr., International President
United Mine Workers of America

Cecil Edward Roberts, Jr., a sixth-generation coal miner whose grandfathers were both killed in the mines, became president of the United Mine Workers of America (UMWA) in 1995, after serving as vice president of the union since 1982.

After military service in Vietnam and attending college, Mr. Roberts worked for six years at Carbon Fuels' No. 31 mine in Winifred, West Virginia, where he served as a local union officer. He was elected Vice President of UMWA District 17 in 1977 and was later reelected without opposition.

In 2001 he became a member of the AFL-CIO's Executive Council and in 2005 was appointed to its Executive Committee. He also serves on the board of the American Income Life Insurance Company.

At the end of 2008, he became the second longest-standing President of the UMWA, second only to John L. Lewis.

Mr. Roberts graduated from West Virginia Technical College in 1987, and received an honorary doctorate in humanities from West Virginia University of Technology in 1997.

After his obituary was mistakenly published in the newspapers of the day, Mark Twain, who was still very much alive at the time, declared, "The reports of my death have been greatly exaggerated."

I am often reminded of this story when I hear from those who say that the use of coal to generate our nation's energy must cease immediately, as well as from those who fear that may actually happen.

Both sides are wrong. Here's why:

With some 45 percent of electricity generated by coal-fired power plants, coal is the dominant low-cost fuel for American electricity and will remain so for many decades. Apart from nuclear energy and the safety and environmental concerns that come with it, there is not, and will not be, electricity-generation technology that can replace coal in the next 20, 30 or even 50 years. And with America facing the demands of a growing population and its corresponding demand for power, that is perhaps the ultimate "inconvenient truth."

With some 45 percent of electricity generated by coal-fired power plants, coal is the dominant low-cost fuel for American electricity and will remain so for many decades.

Yet it is foolhardy to collectively stick our heads in the sand. Climate change and its challenges to our planet must be addressed. In doing so, we must ensure that the approach we take meets the needs

of all of society's stakeholders – including its workers – as well as ordinary citizens who even today are struggling to meet their monthly utility bills.

Our elected officials have struggled for some time to devise a balanced plan, and there are some good ideas on the table. But make no mistake that legislation which would force steep emission reductions over premature timetables would cause utility bills to skyrocket, because other low-cost energy sources simply do not exist. Our nation needs to ensure that technological improvements, enabling us to use coal cleanly, take place in advance of major greenhouse gas reduction cuts. Developing this technology will secure our future.

Our ability to continue to use our abundant domestic coal resources depends upon rapid technological progress in carbon capture and storage (CCS). CCS technologies are the principal means for reducing carbon emissions from coal-based generating plants which currently account for roughly one-third of the total U.S. carbon dioxide (CO₂) emissions. The technology transforms CO₂ gas to liquid form and injects it miles underground in deep saline aquifers or shale formations, where it is permanently stored.

Advancing the commercial development and demonstration of CCS technologies is vital to our nation's long-term ability to achieve significant reductions of greenhouse gases in the electric energy sector and to preserve and enhance the roles of domestic coal, oil and natural gas as future sources of clean energy. If CCS technologies are not available to meet greenhouse gas reduction goals, utilities will have little choice but to switch from coal to more expensive natural gas, driving up gas prices for residential and industrial customers.

As our government moves forward, here is what we need to see on the legislative front:

- Reduction of the 2020 emission reduction target from the much-touted 17 percent level to a more realistic number. The 17 percent reduction does not provide sufficient time for the development and commercial application of CCS technology on new or retrofitted plants.
- Restricting the free allowance allocations to non-carbon-emitting sources to prevent a windfall to nuclear, hydro and other non-carbon emitting sources. The UMWA favors an allocation approach that reflects historical emission levels.
- Full funding for commercial CCS projects.
- Strengthened provisions on international participation. If other nations, particularly those like China, India and other developing countries (that already or will soon emit more carbon emissions than the U.S.) do

little or nothing to curb their carbon emissions while our nation takes these steps, then in many respects our approach would be little more than just another mechanism to transfer American jobs overseas. We must ensure our nation does not suffer severe economic harm should other nations fail to meet their responsibilities.

- Retain \$150 billion in funding for CCS technology development and the allowances for commercial applications. CCS is the future of coal for energy generation, not just in America, but throughout the world.

Coal provides reliable, low-cost power to millions of American homes and high-paying jobs to workers and communities in more than 20 coal-producing states. A nation that could put a man on the moon can, with the proper commitment and vision, devise technological solutions that will cleanly use this most abundant natural resource, cut greenhouse gases, guarantee

our energy security, protect our economy and preserve tens of thousands of jobs. ▽





More Gas, Less Coal? What Will West Virginia's Energy Future Look Like?

P. Jerome Richey, Executive Vice President – Corporate Affairs,
Chief Legal Officer and Corporate Secretary
CONSOL Energy

Jerry Richey is executive vice president – corporate affairs and chief legal officer of CONSOL Energy and CNX Gas Company. In that role, Mr. Richey oversees the legal function at Consol Energy. In addition to these responsibilities, Mr. Richey leads the government relations, investor relations, public relations and human resources efforts of the company.

Mr. Ritchie is on the board of the Epilepsy Foundation of Western Pennsylvania as well as The Pittsburgh Experiment. He is a member of the American Bar Association, Allegheny County Bar Association and Washington County Bar Association.

In the state in which it has continuously operated longer than in any other, CONSOL Energy remains one of West Virginia's leading energy producers, employers and corporate citizens.

When its predecessor – Consolidation Coal Company – first acquired the coal and property holdings of the Fairmont Coal Company back in 1903, CONSOL Energy began its long association with West Virginia. In that first year, the company produced 3.8 million tons of coal from 37 mines in the state.

Today, CONSOL Energy and its subsidiary companies annually account for more than 30 million tons of coal. This is a nearly ten-fold increase from that first year of production – from only seven modern mining complexes in West Virginia – ranking CONSOL as the state's largest producer, at about 25 percent of the state's annual coal production. In addition, CONSOL's

nearly 3,500 employees in West Virginia account for hundreds of millions of dollars in annual payroll, benefits and tax revenue.

During the past five years, CONSOL has invested several hundred million dollars of capital into improving the operations of its large underground mines in West Virginia, and we also purchased the AMVEST Fola coal properties in central West Virginia in 2007.

One can easily see that CONSOL Energy remains committed to the coal industry in West Virginia. Coal still accounts for about 70 percent of our earnings, and in terms of our coal operations in the Appalachian Basin, CONSOL leads the industry in revenue, net income, production and reserves.

While coal will continue to be a mainstay for CONSOL in West Virginia, we also operate



Longwall operators at a CONSOL Energy underground mine



A CONSOL Energy Marcellus Shale drill-site in southwestern Pennsylvania

suppliers to the electric power industry in the northeast quadrant of the United States.

What does CONSOL's highly diversified business model as the region's prominent energy producer mean for the state of West Virginia? It provides a real-life, dramatic example for the state to consider when making choices for development of its vast natural resource base.

According to the Energy Information Administration, demand for coal is expected to grow by 28 percent, and for gas, the expectation is it will grow 38 percent by 2035. With West Virginia's total recoverable coal reserves set at nearly 2 billion tons, and natural gas reserves of more than 5 trillion cubic feet (Tcf), the state is well positioned to enhance the production and sale of both resources.

Coincidentally, West Virginia as a state mirrors CONSOL Energy as a company in several ways, in terms of energy production. West Virginia:

- is the largest coal-producing state east of the Mississippi River, accounting for about 10 percent of national coal production annually.
- leads the nation in coal production from underground mines.
- has the second largest recoverable coal reserve base in the nation at 2 billion tons.
- has the opportunity to dramatically grow its gas business, where about 2.5 billion cubic feet (Bcf) is produced annually (only about 1 percent of the U.S. total).

But in order to take full advantage of its potential as a dynamic energy hub, the state must rely on its "human" resources in government, business, education and citizenry to formulate a balanced and effective action plan that is environmentally friendly and which ensures that West Virginia remains an important and strategic component of a national energy policy. ❧

substantial oil and gas business through our 83.3 percent-owned CNX Gas subsidiary, and we have taken recent steps to increase our natural gas business in the state and elsewhere in the Appalachian Basin. This past March, CONSOL entered into an agreement to acquire the Appalachian oil and gas exploration and production business of Dominion Resources, Inc., which itself has a long and storied history with West Virginia.

As a result of the \$3.475 billion agreement to acquire Dominion's E&P business, CONSOL Energy will be the largest, and among the fastest growing and lowest cost, producers of natural gas in the Appalachian Basin. In addition, it gives us a leading position in the strategic Marcellus Shale fairway by tripling our development assets to approximately 750,000 acres, portions of which are located within West Virginia.

Shortly after the announcement of the Dominion transaction, CONSOL Energy announced an agreement to make an offer to acquire all of the shares of CNX Gas common stock that it does not currently own. The acquisition will facilitate the integration of our CNX Gas assets and the newly acquired Dominion assets. The acquisition of Dominion E&P was completed in April of this year, and it is anticipated that the buy-back of CNX Gas shares will be completed by early summer.

Collectively, coal and gas fuel about 70 percent of all U.S. power generation, which places CONSOL Energy in a very favorable position to seize opportunities presented in the marketplace for both fuels. With CONSOL Energy's coal and gas reserves located mainly east of the Mississippi River, this gives us an advantage as one of the major fuel



The State of West Virginia Coal: 2010

William B. Raney, President
West Virginia Coal Association

William B. "Bill" Raney has served as president of the West Virginia Coal Association, Inc. since 1992. Previously, he was vice president of the West Virginia Mining & Reclamation Association for 15 years and spent seven years with the West Virginia Department of Natural Resources, serving throughout West Virginia in positions of reclamation inspector, administrative assistant and assistant chief of the reclamation division.

Through 30 years of service with the West Virginia Army National Guard, Mr. Raney has served in a variety of capacities, including Commander of the 111th Engineering Group and is currently serving as Special Assistant to the Adjutant General, State of West Virginia.

Mr. Raney has served on a wide number of boards and councils, including the West Virginia Business & Industry Council, of which he was chairman for nine years; the Governor's Energy Task Force; West Virginia Kids Count; Boy Scouts of America, Buckskin Council; and the Special Reclamation Fund Advisory Council.

He received both his undergraduate degree in biology and a master's in public administration (MPA) from West Virginia University.

As we begin a new decade, it is appropriate to take a look at where we have been, where we are going, what our opportunities are and what obstacles exist along our path.

As an industry, we have a lot in which we can take pride.

In just the past 10 years, our 21,000 active coal miners have provided 1.5 billion tons of coal to fuel our nation's energy demands and provide the building blocks of our nation's industrial might and contribute to its security.

The hard work of West Virginia coal miners has given Americans a standard of living unparalleled in the modern world. It literally fuels our dreams.

The hard work of West Virginia coal miners has given Americans a standard of living unparalleled in the modern world. It literally fuels our dreams.

However, our industry's reach goes far beyond just the contribution of our active coal miners. Another 45,000 vendors and support workers work together with the coal industry. From the mechanics and sales people to the engineers, surveyors and support staff at hundreds of state companies, the reach of the industry is felt in a very direct way. And going further, thousands of additional jobs are spun off by the industry into their host communities – from the pizza shop to the convenience store, from the sales people at the local auto dealership to the teachers in our public schools – our 21,000 coal miners provide the bedrock on which these other jobs depend.



According to a recent joint study undertaken by the colleges of business of West Virginia University and Marshall University, the state's coal industry provides an estimated 63,000 jobs for West Virginians – ranging from actual coal mining jobs to sales jobs at coal vendor companies, utility companies, rail and transport companies.

In fact, according to the study, West Virginia's coal industry generated an estimated \$23.5 billion in 2008.

Our industry has stepped up to the plate to meet the needs of the future. Working together with local and state public officials to coordinate the needs of mining with those of our host communities, we are creating much-needed land for use as sites for industrial parks, shopping centers, schools, roadways, airports, parks, new homes, ball fields and playgrounds.

In so many ways, West Virginia coal miners are providing for our present and building a future for themselves and for the people of our state.

We also have worked hard to preserve and protect our past and our heritage. We have gone far beyond that which was required of us to restore former mine sites to their former beauty. We have planted millions of trees – working in conjunction with major universities to restore



Contour service mine in Boone County, West Virginia

may be forced to shut down without the support of these facilities.

The EPA and the Obama Administration seem content to put thousands of West Virginia jobs in danger in the middle of our current economic downturn. These are not just “policy” decisions. These are not just nameless, faceless “coal miners.” These are people – hard-working people with families who depend on them to put roofs over their heads and food on their tables.

Due to the strong leadership of Governor Joe Manchin and our state legislature, West Virginia has an opportunity to emerge from the current economic downturn as a new vital center of the nation’s economy.

As a state, we are weathering the current economic storm far better than most states, and once our economy begins to pull itself out of this situation, we can truly be an economic leader for our nation.

We have coal that can be used to meet the nation’s energy needs and free us from our dependency on unreliable foreign oil. We have the skilled, hard-working coal miners needed to bring that coal to the market, and we have the technology to make our coal environmentally safe and to mine it in environmentally sound ways.

We can either choose to embrace our God-given gift of coal – our natural advantage with stewardship and discipline for the good of all West Virginians – or we can choose to turn our backs on it and condemn ourselves to decades of dependency and economic uncertainty. I think the proper course for West Virginia is obvious.

Our coal miners simply want to work. ∇

(Above) Photo courtesy of the WV Coal Association

species on the brink of extinction to their former range. Our sites have provided habitat for wildlife and helped bring several species back to our region.

Every day our miners prove the truth of the statement that “West Virginia coal miners are the true environmentalists.” They do the hard work, and they do so without seeking recognition or attention. They do it because it is right and because they live and work here.

Our coal miners ask for nothing other than the ability to do their jobs and take care of their families. Despite the undeniable contributions of West Virginia’s coal miners to the state and its people, they spend each day worried about their futures and that of their families. They face the ridicule and accusations of radicals who care more about a few flies than the livelihood of West Virginia’s children. These anti-coal extremists are trying to end the use of coal as a fuel, and they now have allies running Congress, federal regulatory agencies and even sitting in the White House.

Unfortunately, these attacks have been successful in far too many instances.

Recently the Sierra Club claimed they had stopped a series of proposed coal-fired power plants around the country during the past 10 years.

What does that mean? The answer is simple ... lost jobs and continued dependence on unreliable foreign sources of energy. It is hard to believe, but the Sierra Club seems to be proud they have jeopardized jobs for Americans when so many people are struggling.

These power plants would have created 17,000 coal mining jobs and a total of 167 million tons of lost coal sales.

Our coal miners simply want to work.

On another front, the U.S. Environmental Protection Agency and the Obama Administration are holding up issuance of some 20 much-needed permits for surface mine operations in our state. Their action is endangering approximately 18 million tons of coal production each year, along with 1,300 jobs for West Virginians. That is 13 percent of our state’s total coal production. And that is just the direct impact. Some of these mines have related underground and surface operations that



To See the Future of Coal in West Virginia, Look First to Global Markets

Richard M. Whiting, Chief Executive Officer
Patriot Coal Corporation

Richard M. "Rick" Whiting serves as chief executive officer and a director of Patriot Coal Corporation, positions he has held since the spin-off of Patriot from Peabody Energy in 2007. Prior to the spin-off, he held numerous corporate and field positions with Peabody, including executive vice president and chief marketing officer and president and chief operating officer. Mr. Whiting has a total of 34 years of experience in the coal mining industry.

Mr. Whiting is a former chairman of the National Mining Association's Safety and Health Committee, a former chairman of the Bituminous Coal Operators' Association, and a past board member of the National Coal Council. He is currently a director of the National Mining Association and a director of the Society of Mining Engineers Foundation Board of Trustees. Mr. Whiting holds a bachelor of science degree in mining engineering from West Virginia University.

In the first two months of 2010, the people of China purchased nearly 2.9 million new cars – that is up nearly 84 percent from the same period a year ago, according to the *Wall Street Journal*. While proof of the rising incomes of Chinese citizens, it is also great news for the West Virginia coal industry.

The reason is simple. Rising demand for automobiles is just one of several factors driving a boom in steel production in China and other Pacific Rim countries. And metallurgical coal – or met coal, as it is commonly known – like we find here in Central Appalachia is a key ingredient in the steel-making process.

**Make no mistake, coal remains
a low-cost source of energy in
our energy-hungry world.
Low-cost energy drives the
manufacturing competitiveness
our country needs to compete
in today's global markets.**

In fact, as the world pulls itself out of recession, steel production is expected to increase about 10 percent globally in 2010, with China and India leading the way, the World Steel Association reports. The good news for our region: these nations do not have the ability to supply adequate met coal to support this growth.

Chinese met coal imports, for example, have increased dramatically in recent months. How dramatically? In 2009, China imported



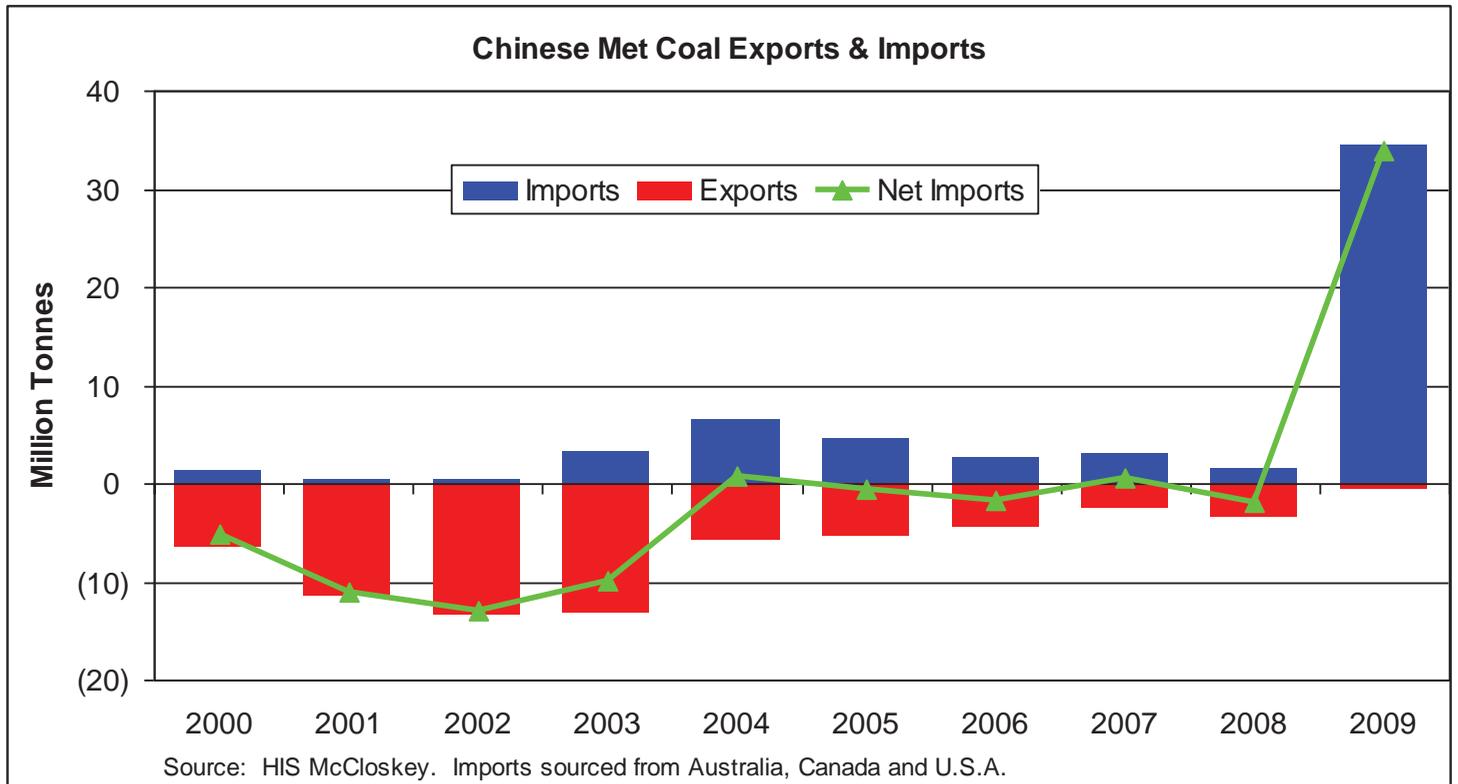
approximately 35 million tons of met coal, up from just one million tons the year before.

The even better news for the Central Appalachian coal industry: industry analysts do not believe this is a one-time fluke. Given the expected increase in steel production and met coal supply limitations, we believe U.S. met coal exports to China, India and other international markets are sustainable and likely to grow in the years ahead. China's recent decision to add more than 20,000 miles of track to its railway network by 2020 further supports this point.

Our company, Patriot Coal, is among those already benefiting. For the first time in many years, we will be making major shipments of our met coal products to Asian destinations. In fact, we recently announced that we will be shipping 1.5 million tons of met coal to the Pacific Rim.

A Brighter Future for West Virginia's Coal Industry

This increased international demand provides a major boost for Appalachian coal producers, translating into a brighter future than we might have predicted even six months ago. It should be brighter, first and foremost, because growth in Asian demand complements the long-term fundamentals of U.S. steel production and electricity generation, which continue to represent solid and sustainable markets for our region's high-quality products.



Growing demand means greater market stability for the coal industry. And it should allow our region's coal companies – Patriot Coal included – to justify new investments for expanded production capacity, which will create more well-paying jobs in the communities where we operate.

Make no mistake, coal remains a low-cost source of energy in our energy-hungry world. Low-cost energy drives the manufacturing competitiveness our country needs to compete in today's global markets. The abundance of high-quality coal in our region should continue to provide a steady source of jobs, which would bode well for our economy and the quality of life here for many years to come.

Even the combination of high-quality coal, strong demand and greater market stability, however, does not guarantee a bright future for our regional coal industry. In fact, many analysts predict that Central Appalachian coal production will decline in coming years as a result of more extensive safety regulations, depleting reserves, more difficult geology and delays in issuance of surface mining permits.

It is up to all of us to work together and find solutions to prove these predictions wrong. Similar predictions have been proven wrong in the past, but the mounting challenges will make the test tougher this time around.

With our extensive reserve base, strong operating footprint and dedicated people, we at Patriot have a unique opportunity to thrive in this environment. In fact, our entire region has the opportunity to thrive. I am referring not just to the coal companies, but also to the many institutions and businesses related to our industry, including the colleges, transportation companies, equipment suppliers, banks and professional service providers, all of whom should work in cooperation to maximize the benefits of the opportunities we see.

And we all need to start these activities now. The future of West Virginia's mining communities depends on us, collectively, making the right – and timely – decisions and choices. ▽



Coal in Kentucky: The Debate Continues

J. Steven Gardner, PE, President and Chief Executive Officer
Engineering Consulting Services, Inc.

Steven Gardner is president and chief executive officer of Engineering Consulting Services, Inc. (ECSI), headquartered in Lexington, Kentucky. ECSI has been in business for over 27 years and has five offices in Kentucky and West Virginia.

Mr. Gardner holds a bachelor's degree in biosystems and agricultural engineering, a master's degree in mining engineering, and certification in environmental systems from the University of Kentucky.

As a licensed professional engineer in Kentucky and several other states, he has worked as an engineer and manager in both mining operations and consulting engineering and served on a mine rescue team during his 35-year career.

He is a member and past chairman of the Kentucky Board of Licensure for Professional Engineers and Surveyors, chairman of the University of Kentucky's Mining Engineering Foundation and past chairman of the Society of Mining, Metallurgy and Exploration's national government, education and mining (GEM) committee.

History, especially mining history, is a hobby. He is a member and past president of the Woodford County Historical Society.

His consulting practice focuses on energy, natural resources, mining, environmental, health and safety, sensitive land use issues and industrial heritage projects.

Kentucky has deep roots in mining and coal. Coal is a part of Kentucky's heritage and still a part of Kentucky's future. Today, several departments at the University of Kentucky, such as Mining Engineering, Agricultural and Biosystems Engineering, Forestry, Agronomy, Kentucky Geological Survey and the Center for Applied Energy Research, are leading the country in coal-related research in environmental restoration, safer and more efficient mining systems, coal resources, reforestation and cleaner coal utilization. An inconvenient reality is that this country still needs coal for the future – not just for energy, but as a resource for products used every day.

Barbara Freese's book, "*Coal – A Human History*" made the observation that, "... in the United States ... Coal transformed a virtual wilderness into an industrial super power with astonishing speed."

We need to find alternative sources of energy. Coal is a finite resource. Many argue over exactly how much longer the coal will last: 200, 100, 50 years? The exact figure depends on our energy consumption. Undoubtedly we consume too much. Beyond coal, petroleum, nuclear and alternative energy, there is another, untapped, resource: efficiency, the "fifth fuel."

At the 2009 Governor's Conference on the Environment, Kentucky Governor Steve Beshear made the statement that "Kentucky is a Coal State and this is a Coal Nation." Vice Admiral John Grossenbacher, director of the Idaho National Laboratory, observed that while nuclear power could safely supply the country's electricity, it will take decades to ramp up to sufficiently meet our needs. In the meantime, coal will still supply a large part of our energy. Dr. Dan Arvizu, director of the National Renewable Energy Laboratory, noted that while



renewables will supply significant amounts of energy in the future, coal will be necessary for decades.

I am the first to admit that mining coal caused past problems. However, the debate over mountaintop mining rages with extreme misinformation. Mining methods and land restoration have improved over the decades. Land and ecosystems are restored, in large part due to research efforts at the University of Kentucky. I would suggest listening to those experts for facts, instead of the fiction offered by others. Environmental performance in air and water has improved tremendously.

Restored mine sites in eastern Kentucky are among some of the most valuable land there. Lt. Governor Dan Mongiardo and House Speaker Greg Stumbo both live on restored mine sites. Dr. Mongiardo practiced medicine in a hospital on a restored mine site. Not all mountaintop sites have been developed in the traditional sense, i.e., industrial, commercial and residential. A three percent figure, recently quoted in the *Lexington Herald-Leader*, is very misleading. Thousands of acres have been developed into recreation areas, wildlife habitats, farms and homesteads – with thousands more creating opportunities for the future. Can we do better? Yes, but great strides *have* been made.

Miners and those associated with the industry are fiercely proud. Those of us with Appalachian roots are also fiercely independent and guard our individual private property rights. One of the myths that circulates is that mining companies mine people's property without their permission.

Nothing could be further from the truth. I believe the vast majority of landowners in eastern Kentucky want their land mined and restored as *they* want it, not the way someone from Louisville, Lexington or Berea wants it. Sure, there are those who do not want their property mined, and that is their right. The question is how to mine responsibly and not impact another's property.

Typical criticisms of mining include stream loss, unstable fills, flooding, wastelands, no vegetation, killing wildlife, blasting and dust, overweight coal trucks and slurry impoundments. Modern science has shown us how to reconstruct streams, make fills stable, restore forests, bring back wildlife and create new ecosystems. The *Herald-Leader* has blamed mining for flooding in eastern Kentucky. Science has shown us that mining in most cases actually retards peak flows, reducing flooding. The truth is, flooding would have occurred regardless. Blasting, dust and coal trucks are problems, but regulations are in place to handle violators.

Unfortunately, accidents involving trucks happen on all roads. Some anti-mining activists try to connect slurry impoundments and mountaintop mining. The truth is that only some surface mine coal requires slurry impoundments, but

virtually all underground mine coal does, meaning more slurry impoundments will be required for underground mines.

UK Coach John Calipari participated in the 2009 opening for Alliance Coal's new \$300 million River View mine. Coach Cal commented in his September 19, 2009, blog, "A Miner's Attitude:"

"It was a bit emotional knowing my Grandpa John (not to mention his brother) had spent hours upon hours down under as a West Virginia coal miner (in Clarksburg). But I know how much better the conditions are now for the miners - even if the work is still just as grueling. But make no mistake - it's dark down there and you can feel the bond amongst the miners from the moment you get on the property. Talk about a team? There are no better teammates than coal miners."

There have been many one-sided, anti-coal forums at universities. The first truly balanced forum on coal in Kentucky was held on November 5, 2009, at UK, with presentations of the facts from true experts, contrasted with opposing opinions from the activist community. This forum was part of a project funded by the Kentucky Energy and Environment Cabinet's Coal Education fund to produce a documentary on "Kentucky Coal: Past, Present and Future." For more information, visit the

website at: www.coalinkentucky.com. One opinion presented at the forum came from the Mountain Association for Community and Economic Development (MACED). Their report claims that the coal industry takes \$115 million more from the state in services than is returned in taxes. This report, as detailed in an article by John Cheeves in the January 10, 2010, *Lexington Herald-Leader*, is more fiction than fact. Many statistics are quoted inappropriately and applied solely as coal industry costs to the Commonwealth.

Recent announcements by the United States Environmental Protection Agency regarding mountaintop mining in Appalachia will significantly impact the industry. The EPA is basing much of its justification on studies it says show degraded water quality from fills associated with mining. These decisions mask the real intent of EPA to simply slow down or completely stop all coal mining in the region and are based on incomplete science. To truly understand the impacts of mining, more complete science is needed, with industry given the time to comply. These new guidelines are essentially being applied to ongoing operations retroactively and impact the ability to mine coal by underground methods as well, impacting not only mining companies, but the landowners whose property values will now be reduced. If the same standards were applied to all forms of construction and development, essentially no land disturbance activities would be allowed.

The unfortunate result of these decisions will be a continued decrease in coal mining in the Appalachian region, much higher electric rates and potentially further loss of industry and jobs in Kentucky and West Virginia – the two states primarily impacted by these political decisions. ▽



*Reclaimed mining property, from the documentary, "Kentucky Coal: Past, Present and Future"
Photo courtesy of University of Kentucky*



Longview Power: A New Era of Performance & Efficiency

Charles Huguenard, Vice President and General Manager
Longview Power, LLC.

Charles Huguenard is vice president and general manager of Longview Power, LLC. He oversees the development of the Longview Power project and of operations teams for both Longview and its developer, GenPower Holdings LP.

Mr. Huguenard has 30 years of experience in the power generation industry. He has expertise in plant asset management, operations and maintenance, technical support, environmental permits and labor agreements.

He holds a bachelor of science degree in mechanical engineering from Auburn University.

The Longview Power project is a state-of-the-art, 695 MW (net) coal-fired power generation facility nearing 80 percent completion in Madsville, West Virginia. The facility's integrated process efficiencies and emissions control systems will achieve premiere environmental performance for a coal-fired power plant. When Longview starts sustained commercial operations in early 2011, it will be one of the cleanest, most efficient and most technologically advanced supercritical pulverized coal-fired power plants in the United States. Longview will provide electricity to PJM, a regional transmission organization serving 13 states and the District of Columbia.

Longview features an advanced supercritical pulverized coal (SCPC) boiler, a technology significantly more fuel efficient than older sub-critical boilers found in most U.S. coal-fired plants. The project's net plant heat rate, 8,728 Btu/net kWh (thermal heat units per units of electrical generation) compares to a national average of 10,600 Btu/net kWh and will be the lowest of all coal plants in PJM and among the 0.3 percent lowest in the United States. This high efficiency means minimized resource use. It also

means the plant will be dispatched before less efficient coal plants.

Longview's environmental control systems include selective catalytic reduction (SCR) for removing nitrogen oxide (NO_x) from flue gas; dry sorbent injection (DSI) for acid mist removal; a pulse jet fabric filter (PJFF) baghouse for particulate removal; and wet fluidized gas desulfurization (FGD) to remove sulfur dioxide (SO₂). Combined, these controls will substantially reduce mercury emissions as well. Longview will operate continuous emission monitors (CEMs) for NO_x, sulfur dioxide, carbon monoxide, carbon dioxide (CO₂), mercury, particulate matter and stack flow to demonstrate compliance with stringent air emission limits mandated by West Virginia and the U.S. Environmental Protection Agency (EPA). Longview's emission limits are the lowest imposed by the West Virginia Department of Environmental Protection (WVDEP) for a pulverized coal plant to date.

Longview Power is a mine-mouth project that will utilize local bituminous coal to fuel its boiler. The coal will come from nearby mines via



An aerial view of Longview Power

overland conveyors, reducing local traffic, noise and other potential impacts. The project also will use local limestone in the FGD system. Combustion byproducts will be transferred to a nearby ash management facility. Longview's close proximity to fuel supply and the ash management facility will help minimize environmental impacts, reduce costs and enhance project efficiency. Longview is also pursuing opportunities to beneficially utilize the combustion byproducts. This will further improve project economic performance by displacing disposal costs with product revenues and may also potentially generate CO₂ credits if pending legislation allows it.

Coal: An Abundant American Resource

Coal produces just below 50 percent of the electricity generated in the United States today, a level that hinges on current environmental, regulatory and political debate. A recent U.S. DOE Energy Information Administration (EIA) report predicts that the use of coal for electricity generation will grow at only 0.6 percent annually through 2030. With the passing of proposed climate change legislation following the Waxman-Markey energy bill, EIA forecasts that coal's share of total electricity generation could drop to 29 percent in the same time frame. EIA also suggests that a proposed carbon cap-and-trade system would drive the price of coal from \$2.04 per BTU in 2007 to \$7.82 in 2030 as carbon reduction goals reach 42 percent in the same period.

Additional greenhouse gas regulation appears to be inevitable. The Waxman-Markey bill, which passed the House last summer, would require greenhouse gas reductions of 17 percent by 2020. Meanwhile, the EPA is moving forward to develop its own rules, to be implemented if federal legislation is not forthcoming from Congress.

Clearly, the future of coal's use for electricity generation will depend on issues that include carbon pricing, the commercialization of technologies for carbon capture and CO₂ sequestration

and the advancement of cost-efficient renewable energy sources. Although tougher laws limiting coal-fired generation seem inevitable, coal will likely have a continuing vital role. According to EIA, without the use of both nuclear and clean coal-based electricity, achieving carbon emissions reductions of 80 percent by 2050 could increase electricity prices by 200 percent.

In another closely watched regulatory issue, the EPA is considering whether coal ash should be managed as a hazardous waste. Such a designation would increase costs; Electric Power Research Institute (EPRI) estimates that annual ash disposal costs for the industry would increase by \$10 billion to \$15 billion. The designation by the EPA also would undermine ash recycling initiatives that currently generate \$5 billion to \$10 billion a year in revenue for coal-burning utilities and which currently displace millions of tons of CO₂ production from cement plants. In 2008, according to the American Coal Ash Association, about 60 million tons – 45 percent of the 136 million tons of coal combustion ash that the industry generated – were beneficially used to fill abandoned mines, make concrete and shore up eroding highway embankments. Longview Power expects to generate about 550,000 tons per year of combustion ash.

The Critical Role of Supercritical Coal Power

The intense pressure for continued emissions reductions and improved carbon efficiencies makes building new conventional pulverized coal plants in the U.S. increasingly difficult. The enhanced performance of advanced supercritical pulverized coal (SCPC) plants such as Longview Power offers significant advantages. These advantages are well known, with more than 400 SCPC facilities operating worldwide.

Supercritical plants operate at higher temperatures and pressures, resulting in higher efficiencies – up to 46 percent – and lower emissions than older subcritical coal-fired plants, producing more power from less coal and with lower emissions, before

back-end controls. When coupled with the latest advances in back-end control technologies, the latest generation of advanced supercritical plants achieves new levels of environmental performance.

Summary benefits include:

- Improved plant efficiency and reduced fuel consumption costs
- Reduced CO₂ emissions per megawatt hour
- Reduced NO_x, SO₂ and particulate emissions
- Potential for co-firing renewable biomass fuels
- Capable of full integration with CO₂ capture technology

In short, advanced SCPC offers advantages in performance, reliability, emissions control and cost. And, as Longview demonstrates, new advanced SCPC projects bring many benefits to their host communities.

Longview Power is preparing to meet emerging, increased regulatory demands, currently conducting preliminary carbon capture technology assessments and a detailed geologic survey that will help clarify the potential for local carbon dioxide sequestration. Longview Power also plans to design a potential demonstration project that may, in turn, lead to a commercial scale carbon capture and sequestration project. In addition, Longview Power is assessing the potential for the co-firing of alternative and renewable fuels, which may further improve the project's environmental and economic performance. While the coal industry and coal-fired power remain under close national and international scrutiny, the Longview project's high efficiency, environmental performance and steady drive for continued improvements will help secure coal's continued prominence in our national energy infrastructure for many years to come.

For further information about the Longview Power project, please visit www.longviewpower.com. 



Coal at a Crossroad: Its Future

J. Davitt McAteer, Vice President of Sponsored Programs
Wheeling Jesuit University

J. Davitt McAteer has devoted much of his professional efforts to mine health and safety issues, including efforts to enact the landmark 1969 Federal Coal Mine Health and Safety Acts. In the 1970s, Mr. McAteer led the safety and health programs of the United Mine Workers and founded the Occupational Safety and Health Law Center. He is a former assistant secretary for Mine Safety and Health at the United States Department of Labor and also served nearly two years as the Acting Solicitor for the Department of Labor.

He currently serves as vice president of sponsored programs at Wheeling Jesuit University, where he leads several national centers that impact economic development, education and mine safety.

In mid-April, West Virginia Governor Joe Manchin appointed Mr. McAteer to conduct an investigation into the explosion that killed 29 miners at Massey Energy's Upper Big Branch Mine in Raleigh County, West Virginia. Governor Manchin also appointed Mr. McAteer to investigate the Sago Mine Disaster and the Aracoma Alma No. 1 Mine Fire in 2006. Two of the produced reports included recommendations to improve mine safety in West Virginia and across the nation.

Mr. McAteer is the author of *Monongah: The Tragic Story of the 1907 Monongah Mine Disaster, The Worst Industrial Accident in U.S. History*, which was awarded the 2008 Bronze Prize for history in the Independent Publishers Book Awards.

He is the recipient of the 2008 David P. Rall Award for Advocacy in Public Health by the American Public Health Association.

Today, the coal mining industry is at a crossroads where, for some in the coal community, the environment and environmentalists are seen as the enemy and the industry has the right to do whatever to recover coal in the most profitable method, regardless of the environmental consequences. According to some industry spokespersons, coal is under attack, and opposition to mountaintop removal or environmental controls are driven by anti-coal forces who are threatening the entire coal industry. Monster rallies are held to demonstrate the support coal has among local inhabitants and families. Environmentalists are derided and characterized as "not from here," and any criticism of any aspect of the coal mining business is an attack on all.

But there are many, both within the mining industry and without, who favor the use of coal but oppose mountaintop removal as a method of extraction. There are also those who favor efforts to reduce the pollution generated by the burning of coal and recognize the need to reduce the damage caused by disposal of coal waste and coal combustion waste, such as coal ash. Scientific evidence is now emerging that problems associated with current coal production and disposal methods are not only environmentally dangerous, but destructive and dangerous to the animals, fish and people who live nearby and downstream.

But some unfettered coal use advocates deny that it causes any danger, risk or harm at all and attempt to paint the governmental agencies, notably the Environmental Protection Agency, as anti-coal, anti-jobs and anti-people who work in the mines.

This is an erroneous and flawed approach for the coal industry and the coal community to adopt. For example, one can be *against* mountaintop removal and valley fills and *for* continued coal use. If the industry is to survive, there must be another way forward, as Senator Robert C. Byrd recently pointed out. Coal must accept and adapt to today's political realities, as well as

today's environmental concerns. But if the coal industry keeps its head buried in the sand, this vital industry will be left out of the decision-making and will suffer as a result.

Just as there are coal deposits which are too dangerous to mine safely, there are coal deposits which are too environmentally destructive to remove, not to mention too politically costly to mine. Alternatives do exist. Sufficient underground coal production capacity exists to permit the replacement of mountaintop removal production, albeit a bit more expensive, but safe, and much less destructive to the environment – and underground mining creates more jobs.

Industry leaders need to recognize that the course being followed today endangers not just mountaintop removal mining, but coal mining in general and coal's future. The political pendulum is swinging and it is not in coal's favor, such as when comedian and political pundit, Stephen Colbert, ridicules the coal business for its nineteenth-century tactics. And when Senator Byrd, who historically has been coal's biggest friend, challenges the industry by stating it is time to take stock and address the environmental and waste disposal problems, including mountaintop removal, carbon control, and to stop painting environmental advocates as mortal enemies, he is speaking truthfully. He is telling the coal industry to face today's realities, and, therefore, remains coal's best friend.

If the coal industry is to survive, it must stop blindly denying that it is creating its own problems and find a new course.

Since coal mining began in earnest in West Virginia in the 1880s, the industry and the people of the coal fields have experienced a series of trials which have threatened coal's future. Early on, labor disputes and efforts to organize the miners marked the first half-century of the industry's existence, with violence, strikes and,

finally, union contracts. Interestingly, during those turbulent times, some industry spokespersons took the same doomsday approach heard today, suggesting that if the coal companies agreed to unionize, the coal business was doomed. Suffice it to say, that did not happen.

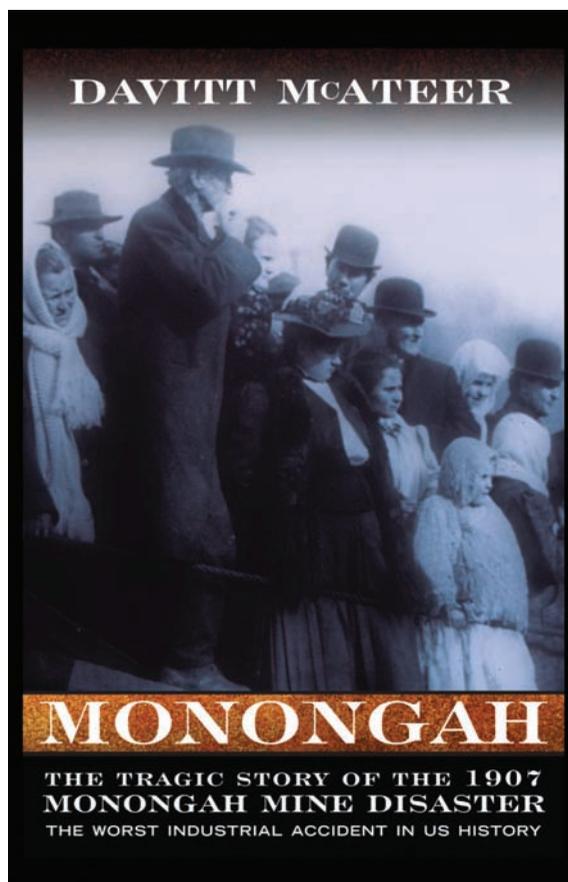
During the first century of coal production, death and disaster also stalked the coal fields. The Monongah explosions on December 6, 1907, resulted in the death of approximately 550 men and boys, and the Farmington disaster on November 20, 1968, took the lives of 78 men. These two disasters, at mines no more than eight miles apart, actually serve as bookends for the beginning of the American miner safety movement, with the passage of the first federal law in 1910 creating the Bureau of Mines, and following Farmington, the adoption of the Federal Coal Mine Safety and Health Act of 1969, ushering in the modern mine safety era. The Sago, Aracoma/Alma and Darby accidents in 2006 stand as stark reminders that death still stalks the Appalachian coal fields and the rest of the country. But, the fact is that this year marks the 100th anniversary of the Bureau of Mines Organic Act which was the beginning of federal involvement in mine safety issues in mines, and the fact that we are continuing to reduce the number of deaths each year suggest progress in being made.

Notwithstanding the Sago and other tragedies, the mining industry now has recognized that the needless slaughter of the miners is not in its best interest and has, for the most part, accepted its responsibility to protect its employees. This, despite the fact that through the struggle to achieve mine safety, certain industry leaders loudly proclaimed the doctrine that the 1969 Safety Act and later amendments would result in the collapse of the mining business, and that also did not happen.

Now the industry faces a third major obstacle – one that again, according to some, threatens its very existence. The

environmental crisis, much like the unionization and safety crises, is threatening the very existence of the mining industry.

In both of these earlier crises, industry leaders stepped up and squarely addressed the challenges. Unions were accepted and contracts stabilized the industry and improved working and living conditions. And in the aftermath of the Farmington disaster in the 1970s, as a result of the 1969 Safety Act, slowly but inexorably, changes in the mining culture occurred. Mine operators and miners adapted, albeit slowly. A safety culture replaced the era of



“it’s an inherently dangerous occupation, and death and injury are inevitable” philosophy. Industry leadership provided the direction which, with exceptions, made fatalities unacceptable.

Today the coal industry is again at a crossroads – this time it’s about the environment. In the 1930s, the industry faced labor disputes and adapted; in the 1960s, they faced safety and health regulations and adapted. Now the industry faces environmental challenges, but it is

still an open question of whether they can or are willing to adapt.

As with the earlier trials, it is not a matter of overcoming and shouting down the opponents and continuing to do just what was done in the past. The coal industry must adapt, recognize environmental concerns and stop berating individuals who hold other opinions. As Senator Byrd stated:

“Scapegoating and stoking fear among workers over the permitting process is counterproductive.”

The truth is that the coal mining industry is not going to close tomorrow because there is no alternative source of energy, but if the industry remains bellicose, threatening and uncompromising, it is digging its own grave.

As Senator Byrd put it:

“...the practice of mountaintop removal mining has a diminishing constituency in Washington. It is not a widespread method of mining, with its use confined to only three states. Most members of Congress, like most Americans, oppose the practice, and we may not yet fully understand the effects of mountaintop removal mining on the health of our citizens. West Virginians may demonstrate anger toward the Environmental Protection Agency (EPA) over mountaintop removal mining, but we risk the very probable consequence of shouting ourselves out of any productive dialogue with the EPA and our adversaries in the Congress.”

“Change has been constant throughout the history of our coal industry. West Virginians can choose to anticipate change and adapt to it, or resist and be overrun by it. One thing is clear. The time has arrived for the people of the Mountain State to think long and hard about which course they want to choose.”

Coal industry leaders must, in fact, embrace the current challenges; adapt to environmental constraints and create its own future, and coal leaders must reject the rigid and backward philosophy and adapt, as has been done in the past. ▽



Carbon Capture and Sequestration: The Future for Coal?

Leonard B. Knee, Partner
Bowles Rice McDavid Graff & Love LLP

Leonard Knee is a partner in the Charleston office of Bowles Rice and has substantial experience in all facets of environmental law and litigation. He entered private practice after serving as an Assistant Attorney General and a Deputy Attorney General with the West Virginia Environmental Task Force.

He was appointed by former Governor Gaston Caperton to the Brownfields Task Force, a panel which promulgated rules governing the remediation of contaminated sites. In 2001, Governor Bob Wise appointed him to the West Virginia Energy Task Force, created to examine how to make West Virginia more competitive in the national energy market.

In 2009, he was one of only two lawyers appointed by Randy Huffman, Secretary of the West Virginia Department of Environmental Protection, to the Carbon Capture Sequestration working group. The West Virginia Legislature created the working group in H. B. 2860 to help it and the WVDEP address the issue of carbon capture sequestration.

Mr. Knee's considerable litigation experience includes mines and quarrying, landfills and industrial facilities, as well as water pollution issues, in particular, ground water hydrology.

He earned a bachelor of arts degree in political science and a master's degree in public administration from West Virginia University. He received his law degree in 1976 from the West Virginia University College of Law. In 2007, he was awarded the Star Award for Service, Support and Commitment to Equal Justice from Legal Aid of West Virginia.

Coal is controversial because of its role in global warming. One possible solution is carbon capture and sequestration (CCS) technology. Using CCS, coal-fired power plants will remove carbon dioxide (CO₂) from the plant's air emissions. The CO₂ will then be liquefied, piped to a geologic storage site, and pumped deep underground. A national system of transportation and storage for CO₂ is expected to develop. The technology to do this is in the experimental stage. One of the first such projects is at the American Electric Power Mountaineer power plant in Mason County, West Virginia.

The technical and legal issues surrounding CCS are substantial. The principal technical issue is whether long-term geologic storage is achievable at an acceptable risk. There is significant debate within the scientific community about whether geologic storage of CO₂ is practicable. The issues related to carbon capture and transportation, while significant, are less demanding and more likely solvable.

The principal geologic storage technical issues are whether there are sufficient geologic formations to store CO₂ and the associated environmental and safety risks. CO₂ storage presents the risk of its escape to the surface, causing death or injury to humans, animals and plant life. In addition, there are risks of: contamination of water supplies; mobilization of contaminants in underground formations; and

rendering unusable or more expensive to exploit coal, gas and other mineral resources. Finally, there is a risk of triggering geophysical and/or geo-mechanical seismic activity.

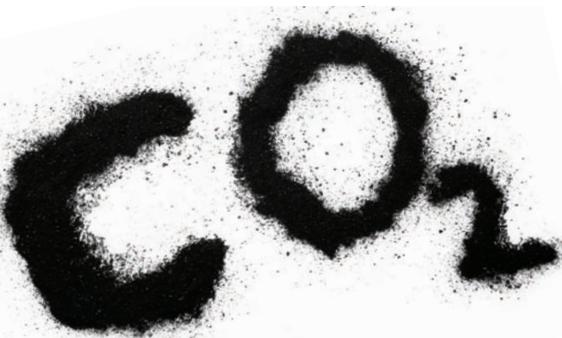
The major legal issue is who owns or controls the pore spaces used for the sequestration of CO₂. Also significant are the liability issues associated with CO₂ storage. Finally, the development of an appropriate regulatory regime to regulate CO₂ injection is necessary.

Major coal-producing states, including West Virginia, Kentucky, Wyoming, Pennsylvania and others, are heavily involved in trying to resolve these issues. On the national level, the United States Congress and United States Environmental Protection Agency also are moving forward to address the CCS issues. Many of the states and the US EPA have convened advisory groups to assist in understanding CCS issues and evaluating appropriate responses. Internationally, many countries – especially in the European Union – also are moving forward with CCS.

Very preliminary estimates of the amount of CO₂ stationary source emission and CO₂ storage resources have been made. The following is an estimate of the total storage resource for selected states.

Total Storage Resource Estimate (million metric tons)

	Low	High
Kentucky	7,175	27,583
Pennsylvania	8,247	24,263
West Virginia	4,873	14,994
Wyoming	217,820	784,329



2008 Carbon Sequestration Atlas of the United States and Canada, second edition, US Department of Energy, Appendix C.



Available storage capacity estimates will rise and fall as additional geologic information is obtained.

West Virginia has between 40 and 150 years of storage capacity for its CO₂ emission sources.

this issue is hostage to the nations' individual self-interests. The bottom line for coal, however, is that if CCS fails, then coal's role in the energy supply mix will rapidly diminish. ▽

The United States and the developed nations of the world are politically determined to move forward to address global warming.

These numbers seem high until one considers the amount of CO₂ which must be sequestered. In millions of metric tons per year, the following are the estimates of the amount of CO₂ from the sources in the states in the table above: Kentucky 106.8, Pennsylvania 131.0, West Virginia 102.1, and Wyoming 53.7. Accordingly, the very preliminary estimates are that

Will CCS work? This is a technology in the preliminary and experimental stage. Most, though by no means all, of the technical literature suggests that CCS is feasible. The scale of the technical challenge is daunting. The legal issues are complex and have no clear-cut answers. This will lead to complex legislation and litigation. Whether CCS will work at an acceptable price can only be truly known when large-scale projects are in operation, and there is a significant track record.

The United States and the developed nations of the world are politically determined to move forward to address global warming. Meaningful reductions in greenhouse gases will occur in fits and starts, as consensus among nations on



Innovative Fossils R & D: A Key Enabler for West Virginia Growth and Prosperity

Rick Remish, Executive Director
Imagine West Virginia

Rick Remish is the first executive director of Imagine West Virginia, which was established in 2006 as an independent, nonpartisan, objective research and development policy institute dedicated to identifying and investigating policy issues and publishing evidence-based recommendations that have the potential to transform the economy of the state and the lives of West Virginians. A tax-exempt division of Vision Shared, Inc., Imagine West Virginia operates through its own board of governors and is supported by contributions from individuals, businesses and foundations.

Mr. Remish is a native of Ritchie County, West Virginia. He completed undergraduate work at both West Virginia University in Morgantown and American University in Washington, D.C. In 1993, he graduated from American with a bachelor of arts in Russian and Eastern European studies and a bachelor of science in economics. Following college, he worked in the United States Senate for five years as an aide to Senator Jay Rockefeller. He then served three years on staff in the executive branch with the Office of the Vice President. After completing his MBA at George Washington University in 2005, he relocated to Morgantown to begin work with Imagine.

In today's competitive global economy, performance and prosperity are based, to a high degree, on knowledge and skills. If we want to provide new impetus for responsible and sustained growth and innovation, we need technological breakthroughs to serve as economic drivers. America's energy future presents bountiful opportunities to fuel such breakthroughs. In fact, collaborative research and technology development, especially around thoughtful, comprehensive and aggressive fossils use and management practices, present one of the most immediate and perhaps greatest opportunities for our state and nation to remain a world leader.

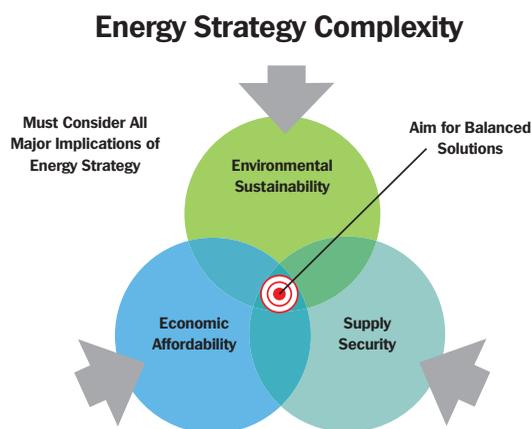
West Virginia is blessed with an abundance of fossils resources, like coal, and historically our state has built an economic dependency around strategies and products derived from them; however, times have changed – and so must our thinking. Just like its energy portfolio, West Virginia's economy is transitioning into a new era, one defined by innovation, efficiency and sustainability. Research is the hallmark of progress for each, yet it is increasingly competitive, expensive and complex. At their core, the best fossils strategies of the 21st century reflect balanced solutions derived from research that is driven by safety and environmental

imperatives, market needs and economic expectations (see Energy Strategy Complexity chart below, left). West Virginia should be at the forefront of the research to generate these solutions.

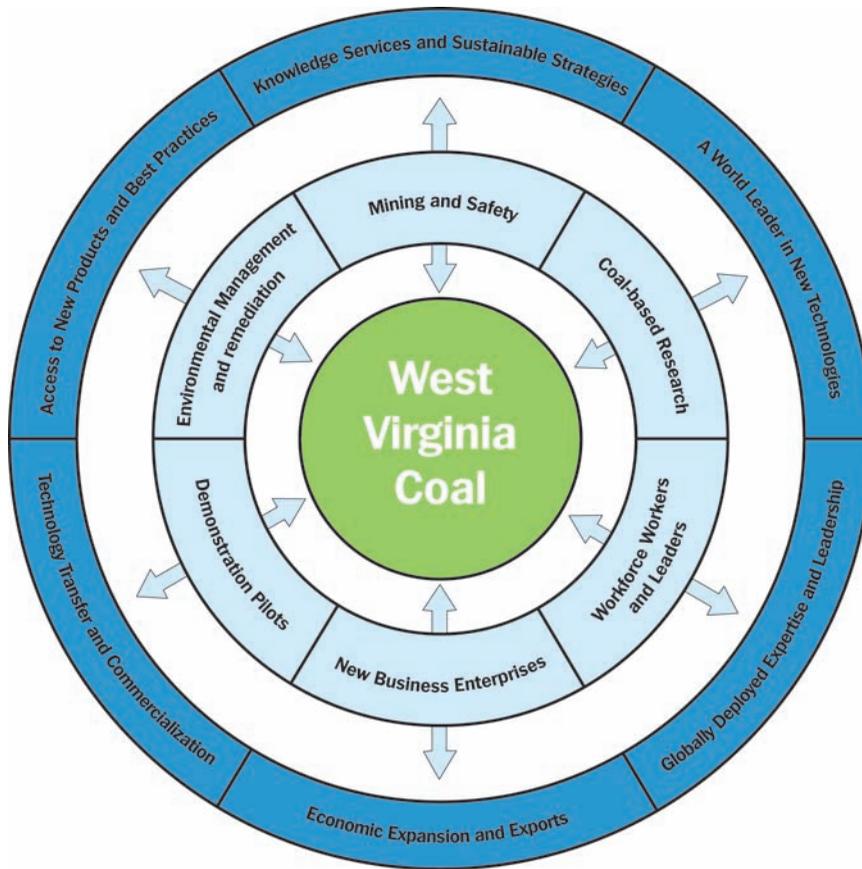
As fossils policies evolve, we must proceed with open minds and great humility. There is a lot that we do not know. We do know, however, that opportunities exist for West Virginia. For example, there is certainty that targeted, sustained investments in research and development can fuel technological innovation, economic diversification and entrepreneurial activities to address the most pressing problems associated with the production of energy from fossil fuels. Obviously the most important solutions for the climate dilemma require an accelerated development and deployment of technologies to manage carbon dioxide (CO₂). In and of itself, this area of research holds incredible potential. It is also one of the reasons that hundreds of millions of dollars have been spent in recent years throughout West Virginia by businesses, industries, academia and the National Energy Technology Laboratory in Morgantown to advance the science.

We also know that we need to develop energy policies based on the best data-driven research available. That kind of research relative to coal was highlighted by Imagine West Virginia (IWV), a nonpartisan group of leaders focused on long-term issues, when we issued *Coal: Energy, the Environment and West Virginia, Leadership for West Virginia and Beyond*. IWV studied the energy issue extensively during 2007 and 2008, and our final report issued the following proclamation:

West Virginia should become a globally recognized leader in technologically advanced, environmentally responsible, safe coal production, use and management.



Source: The National Energy Technology Laboratory



than the loss of a special opportunity to increase West Virginia's technological and industrial capacities within the energy sector to build a more promising future economy.

Based on IWV's findings, the diagram to the left illustrates prime opportunities in which West Virginia can achieve our vision by constructing a better future around coal research and development. The center core signifies the greatest opportunity to have West Virginia coal used more responsibly as a leading source of energy in our country. The light blue ring includes the focus areas where West Virginia can advance on a number of fronts. As the arrows show, much of this work will directly influence our ability to maximize the benefits and minimize the negative impacts of coal. Likewise, the arrows point to the outer ring to signify areas for West Virginia to demonstrate leadership, both nationally and globally.

For the foreseeable future, coal's advantages as a plentiful, ubiquitous and relatively low-cost fuel resource will ensure that it will play a growing role in national and world energy markets. Yet if coal is to fulfill its potential, both domestically and internationally, the adverse environmental impacts and safety implications of production and use must be mitigated. In other words, we must think and act differently about our dependency on the black rock that burns. To do so successfully, we must expend the necessary time, political will and financial resources to generate marketable knowledge-based services and technologies that can be used at home and exported to the world.

Major investments in new mine safety initiatives and the need to find less impactful ways to harness coal always will be in demand, but the development, demonstration and large-scale adoption of advanced coal technologies soon will be required. As illustrated by the graphic on page 65, some of the prime technological opportunity areas ripe for investments

IWV arrived at this proclamation based on five essential premises:

1. During the time it will take to develop and deploy renewable energy sources, coal will continue to be a major source of energy both in our nation and internationally. Research and development aimed at producing environmentally acceptable, safer and more efficient mining and uses of coal must continue.
2. West Virginia coal supplies can be mined and used to help counter foreign oil dependency, meet increased energy growth demands and improve national energy security.
3. The adverse environmental impacts of safe coal extraction, utilization and management must be mitigated. Coal's use in the coming decades likely will depend on how well carbon emissions can be controlled.
4. West Virginia has a natural opportunity and interest in being a more prominently recognized leader in coal research and development. That represents a promising platform for innovative economic opportunities.
5. Coal's future will be influenced by greenhouse gas debate and environmental regulations.

As in 2008, IWV believes West Virginia's leadership, in demonstrating how safe coal management and environmental concerns can be reconciled, will be critical to influencing the outcomes of the debates surrounding the future of the resource. Such action also should create a more progressive, positive image for West Virginia and fuel growth and prosperity by creating more and high-paying jobs for its citizens.

Conversely, continuing the status quo will forfeit these opportunities. More specifically, IWV believes that our failure to influence portions of the socio-economic, health, technological and environmental debates associated with the future of coal most likely will lead to the curtailment of the industry within West Virginia. Given coal's importance to the state economy, the economic ripple effect from that event could be catastrophic. Ultimately, the risk of inaction actually appears even greater

(continued on p. 64)



Coal: Fuel for Economic Growth

Joseph W. Craft III, President and Chief Executive Officer
Alliance Resource Partners, LP

In many ways, Joseph W. Craft embodies the “unbridled spirit” that powers his resource-rich native state, Kentucky. An entrepreneur, attorney and energy industry leader, he has strategically circled his business endeavors back to the nation’s most productive coal fields since arriving in Oklahoma in 1980.

In 1986, Mr. Craft became president of MAPCO Coal, a position he held for 10 years before leading a management buyout of the company’s coal operations. Alliance Resource Partners, LP (NASDAQ: “ARLP”), formed in 1999, became the coal industry’s first publicly traded master limited partnership. Headquartered in Tulsa with support offices in Kentucky, ARLP has grown to become the ninth-largest coal producer in the United States.

Mr. Craft is president, chief executive officer and a director of ARLP. He also serves as president, chief executive officer and chairman of the board of Tulsa-based Alliance Holdings GP, LP, a publicly traded limited partnership that owns the general partnership interests of ARLP.

Mr. Craft has served in various industry and civic leadership positions and received numerous awards, including induction into The University of Tulsa’s Business Hall of Fame as an Outstanding Business Leader in 2009.

He holds a bachelor of science degree in accounting and a Juris Doctor from the University of Kentucky. He also is a graduate of the Senior Executive Program of the Alfred P. Sloan School of Management at the Massachusetts Institute of Technology.

Recently I was cleaning out my home office and came across some old publications of the National Coal Association. Here are a few of the headlines from “*Coal Voice*,” published in the early 1990s:

“Reality Emerging on Global Warming”

“The Economic Impact of Coal”

“Washington Watch: Carbon Tax Threatens Electricity Supply”

“Clean Coal Technologies Opens Potential Billion Dollar Market”

“Carbon Restrictions Curb Growth”

“Scientists Dispute IPCC Climate Report”

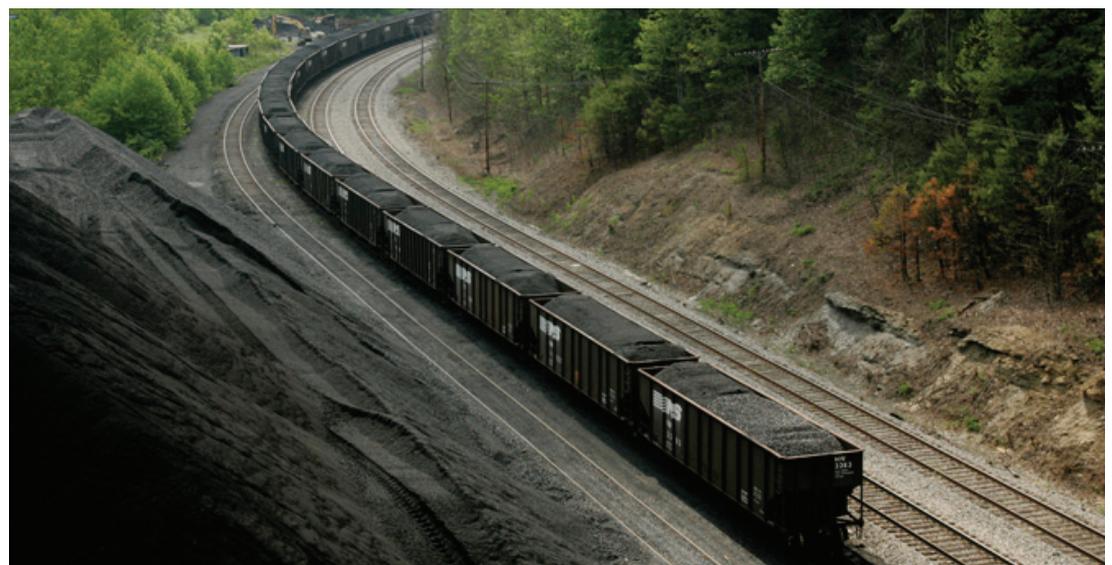
Twenty years later, coal remains the cornerstone for electricity generation in the United States. Coal accounts for nearly half of all electricity produced and is used to generate electricity in 48 states. Coal has maintained its market share, despite facing political challenges for the last 20 years. The key question today is whether coal will continue to be the primary fuel source for America’s electricity generation over the next 20 years.

Certainly, the fundamental benefits and



advantages of coal as an energy source are as true today as they have been over the past 20 years. Coal is the most affordable source of fuel, consistently costing less than other fossil fuels and remaining significantly cheaper than alternative sources of energy. Coal also remains America’s most abundant fuel, accounting for the vast majority of fossil fuel reserves in the United States. The fact that coal is produced in the United States also makes America more energy independent. Further, coal use is tied to economic growth, as evidenced by the fact that America’s coal consumption and America’s GDP grow in tandem – showing an inherent link between affordable energy and America’s economic success.

Nor have the arguments of those opposing coal changed substantially in the last 20 years. Those pushing restrictions of greenhouse gases continue to rely on global warming theory rather than empirical evidence, and important fundamental





questions remained unanswered, such as:

- What climate change is attributable to man and what is attributable to nature?
- What is the ideal level of greenhouse gases in the atmosphere?
- What is the ideal global temperature?
- What is the role of clouds in climate change – do they enhance or counteract any greenhouse gas effect?
- What are the specific costs and benefits of a cooler or warmer climate?

Without answering such fundamental questions, controlling the climate is a daunting task, not to mention a potentially dangerous undertaking.

With the same economic benefits of coal threatened by the same opponents, the real question for the next 20 years becomes: Have Americans' priorities changed? Twenty years ago, there was clear bipartisan support for low-cost energy over high-cost energy, and the economy reigned as the fundamental concern for elected officials on both sides of the aisle. We all remember Bill Clinton's famous campaign mantra of 1992: "It's the economy, stupid!" Politicians of the 1980s and 1990s were simply not willing to return to a high-cost energy economy after the energy crisis of the 1970s brought double-digit inflation, interest rates and unemployment.

Consequently, over the last 20 years, the coal industry was regulated based upon empirically-demonstrated environmental concerns. The coal industry was easily able to meet such challenges through technology. In fact, over the last 20 years the coal industry decreased overall sulfur dioxide (SO₂) emissions by 53 percent and overall nitrogen oxide (NO_x) emissions by 55 percent, despite increasing coal use by 25 percent during that time.

The hundreds of millions of dollars spent by environmental groups and competitors to encourage America to move beyond coal have had an impact on the political process. Billions of dollars have been advocated to subsidize alternative forms of energy. Renewable energy mandates have been created, despite the fact that such sources of energy are non-economic and produced by equipment largely manufactured overseas. Further, it now seems commonplace for politicians, special interest groups and even competing industries to use purported environmental benefits to mask other political, economic and competitive motives.

Nevertheless, the American public still places preeminent importance on the economy and jobs, whereas climate change consistently ranks near the bottom of priorities in public opinion polls. Thus, the future of

coal may turn on whether the rhetoric of coal's enemies or the will of the American public prevails in the halls of Congress. Certainly, when politicians and citizens ponder this question, coal has a strong case to make. The interests of coal are perfectly aligned with the interest of America. Coal promotes economic growth, creates quality jobs, increases energy independence and, because it leads to low-cost energy, allows other industries to compete in a global economy. This point is not lost on other countries. India and China represent two of the world's fastest growing economies, and they rely on coal to generate 68 percent and 80 percent of their electricity, respectively, because they realize that affordable energy will help eliminate poverty and provide their citizens with a better life.

Having grown up in poverty-stricken Appalachia, I would hate to see our country abandon sound economic principles which have served this country well over my lifetime. I trust Americans understand that, in order to be competitive in a global economy, we must be low-cost producers. I say, let the markets work and let's spend our time and money on proven science and funding technology to use our lowest-cost, most abundant resource – coal. Let's not fall behind the rest of the world. W



West Virginia University College of Law: New Program in Energy and Sustainability

Joyce E. McConnell, Dean
West Virginia University College of Law

Joyce McConnell is the William J. Maier, Jr. Dean and Thomas R. Goodwin Professor of Law at the West Virginia University College of Law. She joined the faculty in 1995 and became Dean in 2008. While a member of the faculty, she worked in partnership with others at West Virginia University to obtain more than \$1.5 million in grants from the Kellogg Foundation, the US Geological Survey and the USDA to provide service-learning opportunities to law students to assist low-income rural communities and their residents.

She is the chair-elect of the Association of American Law Schools Section on Natural Resources and became an ABA Foundation Fellow in 2009. Recently, she was appointed to serve on the Governor's Judicial Reform Commission.

Dean McConnell earned her LL.M. from Georgetown University Law Center in Advocacy and began her academic career as a teaching fellow at Georgetown's Center for Applied Legal Studies. She later joined the faculty of the City University of New York. After earning tenure, she spent one year at the University of Maryland School of Law as a visiting professor and then joined the West Virginia University College of Law, where she was promoted to full professor and became the Thomas R. Goodwin Professor of Law.

She is the recipient of numerous awards, including the West Virginia Land Trust's Special Places Award, for her contributions to conservation in West Virginia.

West Virginia University College of Law is moving quickly to establish itself as the premier law school east of the Mississippi with a complete energy law curriculum and a nationally recognized Center for Energy and Sustainability. Reflecting the centrality of West Virginia in energy production, the College of Law has a long history of preparing lawyers to practice energy law. A recent survey of WVU College of Law alumni reveals that a substantial number of graduates practice in energy-focused law firms, government agencies or the energy industry. Through a comprehensive, innovative and balanced energy law curriculum and a Center for Energy and Sustainability, the College of Law seeks to offer a cutting-edge opportunity to future energy lawyers and to establish the College of Law as the premier law school for the education of excellent energy lawyers for industry, government and non-profit organizations.

Innovation in the energy and environmental law curriculum reflects a uniquely sophisticated understanding of the actual practice of energy lawyers. Although other law schools in the United States are known for a focus on energy law, their curricula reflect a more limited view of energy practice. After consulting with energy, business, international and environmental law faculty, as well as lawyers who practice

energy and environmental law for industry, private firms, environmental organizations or government agencies, we are developing a curriculum that recognizes the complexity of energy law and practice. The continuing input from lawyers and academic experts is invaluable in shaping the curriculum and making it cutting edge.

The curriculum has two concentration areas. The first area concentrates on the extraction, production and transmission of energy, as

well as attendant environmental and sustainability issues. The second area focuses on the business side of energy industries, including national and international transactions and trade.

Courses in the first concentration area include energy law; coal, oil and gas; natural resources; private property issues in energy production; safety and health; public utilities; sustainable energy; environmental law;

international environmental law; water law; and land use planning. Courses in the second concentration area include business transaction drafting; mergers and acquisitions; employment law; labor law; international business transactions; international trade; international law; and national security.

In addition to these focused courses, the curriculum includes courses that cut across the

Through a comprehensive, innovative and balanced energy law curriculum and a Center for Energy and Sustainability, the College of Law seeks to offer a cutting-edge opportunity to future energy lawyers and to establish the College of Law as the premier law school for the education of excellent energy lawyers for industry, government and non-profit organizations.

law school curriculum but are essential to the practice of energy law. These courses range from the foundational (business organizations, administrative law and securities) to courses not typically associated with energy but critical to many energy lawyers. These courses include legislation, legislative drafting, negotiation, the regulatory state, corporate responsibility and international human rights and development.

The Center for Energy and Sustainability is under development and closer than ever, with a new faculty line from the University dedicated to energy law. The Center will complement the curriculum and provide a place for interdisciplinary research and balanced exploration of critical legal and policy issues in energy. As the University progresses in its plans to enhance its interdisciplinary research in energy, the College of Law will play a critical role in facilitating collaborative efforts between other disciplines to promote sound energy and sustainability law and policy.

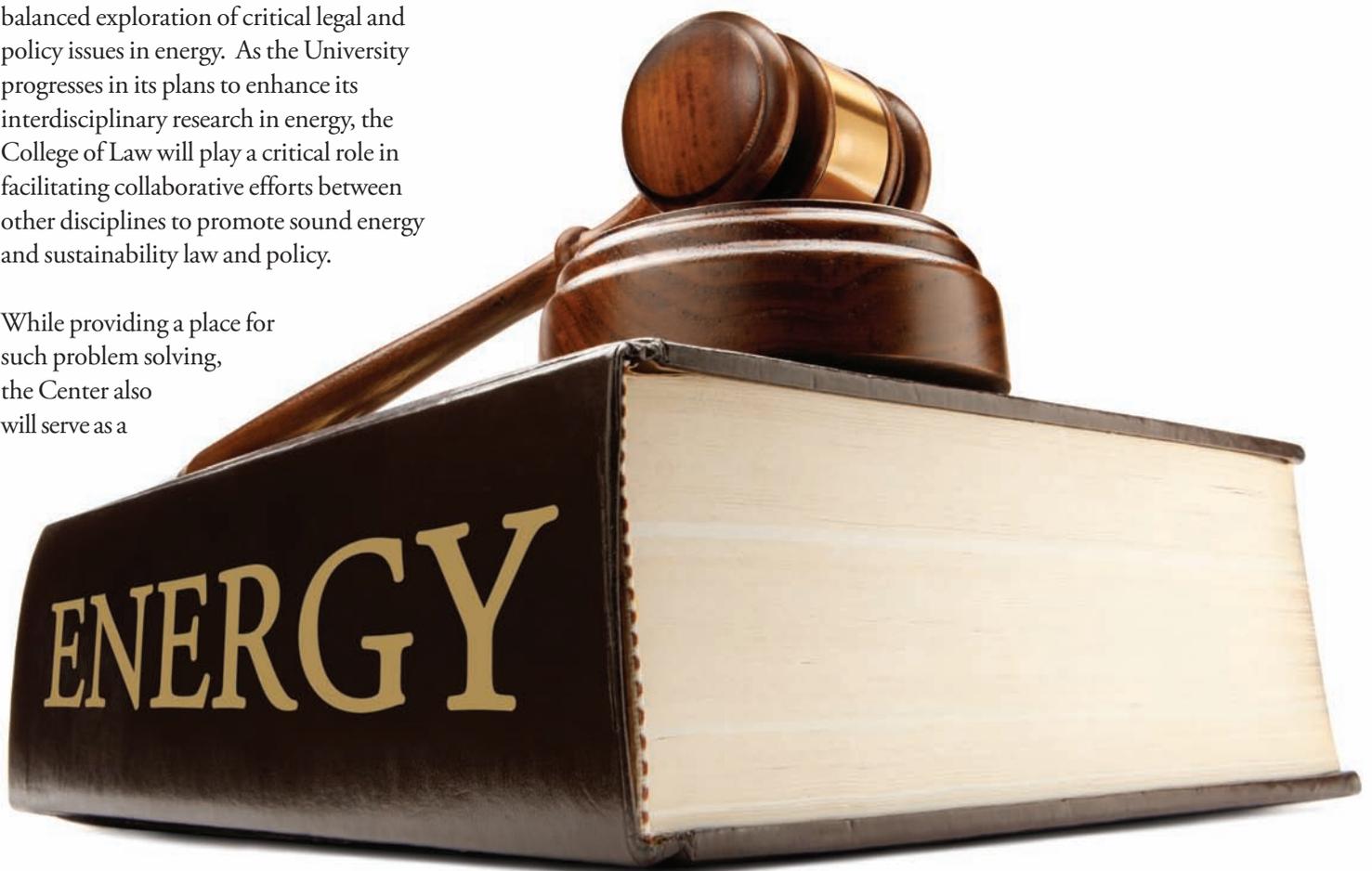
While providing a place for such problem solving, the Center also will serve as a

source of continuing education for lawyers through cooperative agreements with organizations such as the Energy and Mineral Law Foundation (EMLF). In fact, in anticipation of the Center, the College of Law will host and co-sponsor the second annual EMLF Coal Short Course and the first Green House Gas (GHG) Mitigation and Energy Sustainability Short Course. Both will be offered August 1-4, 2010, at the College of Law. (For additional information, go to www.emlf.org) In addition, the Center will offer lectures and programs throughout the year on critical energy and environmental issues.

WVU College of Law faculty, nationally

recognized law faculty, faculty from other disciplines, alumni and students will play a key role in Center programming. There will be an interdisciplinary Carbon Capture and Storage Forum in fall 2010. Students on the Moot Court Board at the College of Law are coordinating the first and only Energy Moot Court Competition to be held at the College of Law in spring 2011.

Through this new curriculum and the Center for Energy and Sustainability, the College of Law seeks to provide a place where the best will work together to solve the critical issues necessary for energy sustainability. Please consider being a part of this exciting effort. ▽





WVDEP's Goal: Protect the Environment Without Lowering Our Standard of Living

Randy C. Huffman, Cabinet Secretary
West Virginia Department of Environmental Protection

Appointed as Cabinet Secretary for the Department of Environmental Protection in 2008, Randy C. Huffman brings more than 22 years of experience with the DEP to the top regulatory post. Prior to his appointment, Mr. Huffman concurrently served three years as Deputy Cabinet Secretary and Director of Mining and Reclamation.

A native of Charleston, he graduated from West Virginia Institute of Technology with a bachelor of science degree in mining engineering technology and later earned his master's degree in business administration from West Virginia Graduate College.

West Virginia coal was thrust into the national spotlight recently, when 29 miners died in an underground explosion at a Raleigh County mine. As the excruciating days of uncertainty about the fate of some of the trapped miners passed, our nation learned about the real face of coal – the dedicated miners and their families who carve out a living from the mountains that surround their homes.

The tragedy at Upper Big Branch, and all of those before in which miners lost their lives while trying to provide both for their families and meet the energy needs of the nation, certainly put into proper perspective any debate on coal's role in West Virginia and our country.

Still, because of coal's importance to the Mountain State's economy, those debates will go on, and people will continue to ask about the future of a product that supplies electricity to half of the nation and to nearly all of West Virginia.

Experts project the coal seams that lace the Appalachian Mountains of West Virginia and other states will be viable for another 30 to 50 years. From a regulatory perspective, the methods of extracting that coal and the standards applied to protecting the environment from the potential harmful effects of mining are likely to be different from what they have been during the last two decades.

Evidence of that is emerging as the federal Environmental Protection Agency (EPA) continues to offer different approaches to implementing the Clean Water Act in relation to coal mining's effects on the nation's waters. The EPA's actions, which include reviewing surface mining permits without input from the state regulatory program, have created an uncertain regulatory climate in the coal industry during uncertain economic times.

Increasingly, the focus of environmental mining regulation has been on the industry's impact on streams and rivers within the state. More than 30 years ago, we were addressing concerns about black water from discharges – today we are regulating pollutants in the parts-per-billion.

So change is nothing new to environmental regulation. It has evolved considerably over the last two or three decades to keep pace with new technology and emerging science.

Over the past year, however, mining companies have been negotiating the terms of their permits directly with the federal government. Recently, the EPA released what it termed "comprehensive guidance to protect Appalachian communities from harmful environmental impacts of mountaintop mining."

The document covers a six-state region that includes West Virginia. Among the key items in the document are interim numeric guidelines the EPA has set for conductivity, a measure of the total dissolved solids (TDS) in water. West Virginia does not have numeric standards for conductivity. High conductivity is not pollution by itself, nor is there a one-size-fits-all number for West Virginia's waters. Learning what parts of the TDS, such as chlorides, iron, aluminum and calcium, are impairing the water is the best approach to ensuring water quality.

Effective immediately, no valley fill permits or water permits for coal mining discharges from surface mines will be approved by the EPA unless these new guidelines for conductivity are met. And the EPA has gone on record to say that very few valley fills would meet the guidelines.

The EPA developed its guidance outside of any rule-making or legal mechanisms. It did not go through any public policy process, nor

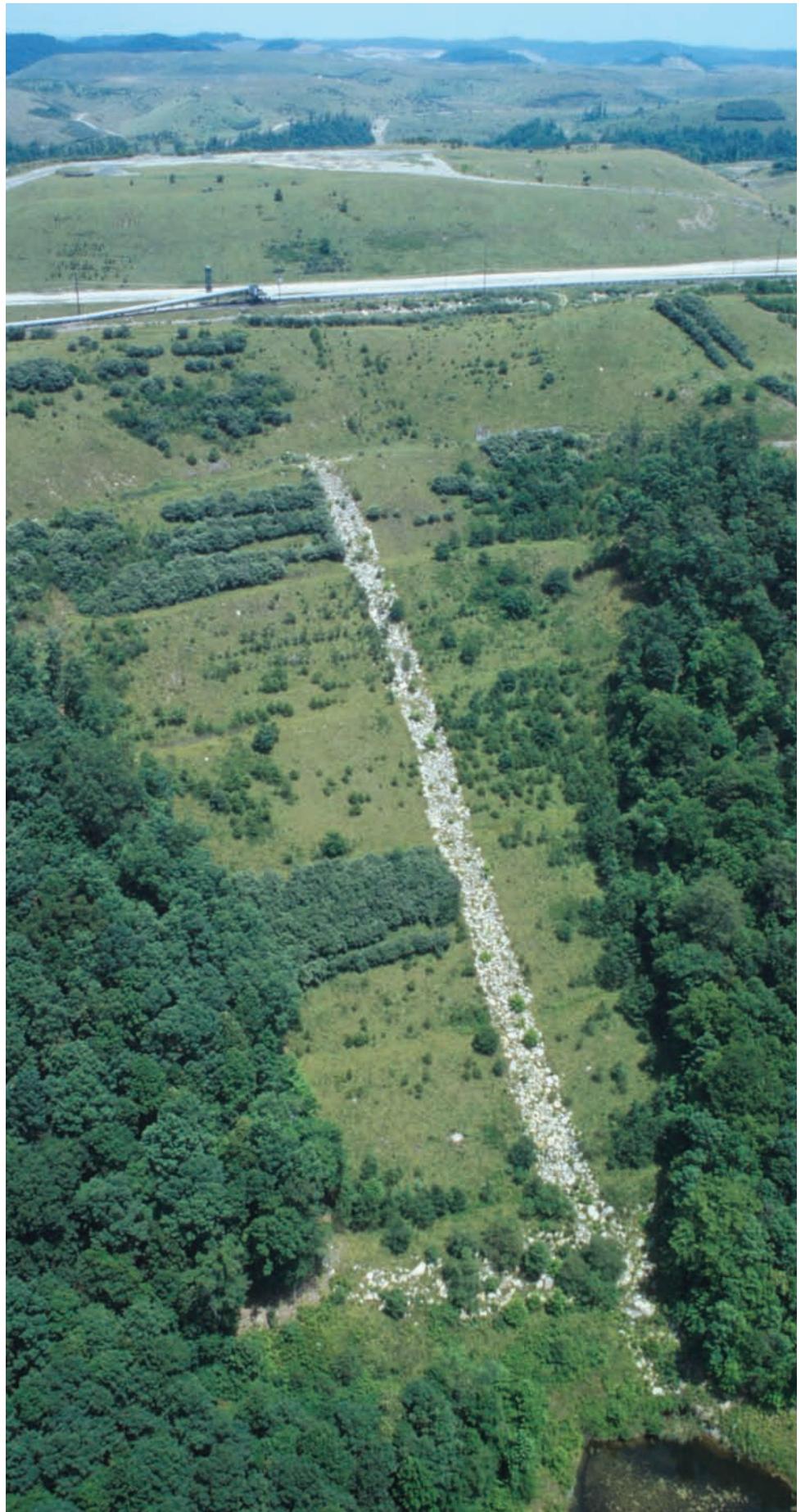
did the West Virginia Department of Environmental Protection (WVDEP) have input on the numbers. The good news, however, is that the EPA has correctly left the door open for further discussion and public debate on its new guidelines and has begun a public comment process.

While discussion and debate over the environmental impact of mining activity has been common here in the Appalachian region, it is a new topic to many. And it is a debate that should be undertaken by national leaders.

Some level of impact is expected with all human activity. The decision is where to draw the line. Science does not draw the line and the EPA by itself should not decide. Collectively, policy makers and elected officials who are accountable to the public should consider the science and society's threshold and lead the decision-making on this very important policy issue.

In the meantime, the WVDEP is moving forward with its protocol for enforcing the narrative water quality standards within its authority. Recently, the agency made a public request for input on its narrative criteria and received comments and suggestions from concerned citizens, watershed and naturalist groups and mining and other industry representatives.

The WVDEP stands ready to work with the EPA, as well as the mining industry, in negotiating permits that address the EPA's concerns, but allow West Virginians to keep working. The agency also will take into account new EPA guidelines as it continues to develop its protocol for identifying and enforcing the state's narrative water quality criteria. The aim of the WVDEP is to provide clear guidelines for protecting the environment without lowering our standard of living. We believe that is a reasonable goal. ♾



Reclaimed valley fill in southern West Virginia

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John W. Woods



Toyota-Like Pride Could Boost the Coal Industry

Bill Bissett, President
Kentucky Coal Association

In February 2010, Bill Bissett was named the president of the Kentucky Coal Association. Bissett was previously employed as the chief of staff/senior vice president for communications of Marshall University, located in Huntington, West Virginia.

Prior to working for his alma mater, Bissett served as vice president of public relations for Charles Ryan Associates (CRA), an integrated marketing firm with offices in Charleston, West Virginia, and Richmond, Virginia. During his tenure at CRA, he was instrumental in the establishment of the Friends of Coal campaign. Prior to his work at CRA, Bissett served as director of communications for both the West Virginia Department of Agriculture and the West Virginia Department of Transportation. He also has worked in television marketing and advertising and was a columnist for The Charleston Gazette.

Bissett earned his bachelor's and master's degrees from Marshall University, in addition to receiving his commission in the United States Army. He is currently pursuing a doctoral degree in leadership studies.

I am a die-hard fan of Toyota and its vehicles. Ever since the company did a regional advertising campaign trumpeting its investment in Buffalo, West Virginia, I have been a loyal customer. Two RAV4s, a Tundra and now a new 4Runner, and I remain impressed with their savvy marketing, great looking products and high-value resale. As a recent transplant to the Commonwealth of Kentucky, I now see what Toyota has done for the Bluegrass State by locating their manufacturing plant in Georgetown, Kentucky. Crack all the jokes you like about sticking gas pedals, but I remain a believer when it comes to Toyota.

The vast majority of Kentuckians and West Virginians see the importance of Toyota to both their states. Toyota is an example of successful, large-scale economic development in both Kentucky and West Virginia. When you drive by their plants or see their products, you cannot help but feel a sense of pride.

So why don't the vast majority of Kentuckians and West Virginians feel the same way about our coal industry? Coal employs many more



people, has a much greater economic impact and is a product that is shipped across the planet. From classrooms to boardrooms, finding a sense of pride outside the coal industry can sometimes be a challenge.

Why? I blame the nature of our business. Our physical product – a piece of coal – is not something that its users come into contact with in their daily lives. Thanks to modern conveniences, we now simply hit a switch and our homes are heated, our rooms are lit and everything that needs electricity is powered in an affordable and reliable manner. Think how surprised and frustrated we are when these switches do not produce the desired response. Yet we never think, “I guess we need more coal.” We do not see the product of the coal industry, so then perhaps the operations themselves could serve as a reminder. Unfortunately, the nature





The Kentucky Department of Fish & Wildlife and the Rocky Mountain Elk Foundation are developing a 16-county, 4.1 million acre elk restoration area in Kentucky, much of it on reclaimed coal sites

of coal mining also keeps its operations hidden from view. We mine coal behind large, chain link fences in rural areas and, in more than 60 percent of operations, we do so underground. When a mine opens, we very rarely have a ribbon-cutting, even though hundreds of jobs have been created with the investment of hundreds of millions of dollars in our economy.

So, with a product its consumers do not actually see, and operations that are often hidden from sight, how does coal become more like Toyota? Well, that is the question I am trying to answer as the new president of the Kentucky Coal Association. From what I have learned so far, there is no easy answer.

Regardless, the demand for coal is expected to grow. There is great certainty that the United States' demand for electricity will only increase in the future, and this demand will further skyrocket as

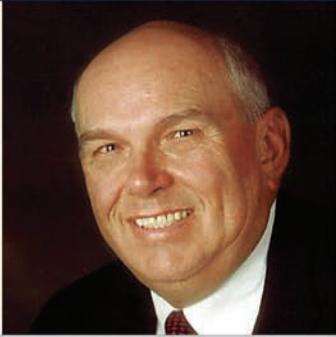
the economy improves. That economic growth must be powered by some source of energy. With more than 90 percent of electricity in both Kentucky and West Virginia coming from coal, we need to invest in and support this most important natural resource.

The good news is that the visibility of coal is increasing. Through the multi-state efforts of both the Friends of Coal and Federation for American Coal, Energy and Security (FACES), more people are standing up for coal and making their voices heard, both at home and in Washington, D.C. There is more work to be done, but these public education campaigns are allowing people in Kentucky and West Virginia the opportunity to learn more about coal, how it touches lives every day, how they can make certain their utility rates remain low and how coal attracts more businesses by ensuring that low-cost electricity

continues to be available.

So what is the connection between manufacturing in both states and coal? One of the critical reasons that Toyota chose Kentucky and West Virginia is our low-cost electricity, which is the final product of our coal industry. Unfortunately, the coal industry faces greater regulatory burdens from the Environmental Protection Agency and litigation from activists who suggest that we move "beyond coal," but who offer absolutely no plan as to where we will get our energy. The coal industry needs your support. Get involved. Learn more. Then we might have more businesses like Toyota moving to Kentucky and West Virginia. ▽

Above: Photo by Rocky Mountain Elk Foundation



Land Companies are Key Partners in Growth of Coal Industry

Nick Carter, President and Chief Operating Officer
Natural Resource Partners, LP

Nick Carter is president and chief operating officer of Natural Resource Partners LP (NRP) and its subsidiaries, as well as Western Pocahontas Properties Limited Partnership and New Gauley Coal Corporation. NRP is a publicly traded master limited partnership (NYSE:NRP). These companies have extensive coal and surface holdings in Appalachia, the Illinois Basin and the West. He and his staff interface with the coal and timber industries and the various associations and governmental entities related to them.

Mr. Carter is chairman of the National Council of Coal Lessors, past-chairman of the Huntington Regional Chamber of Commerce, the West Virginia Chamber of Commerce and Junior Achievement of the Ohio Valley and is a board member of the National Mining Association, American Coalition for Clean Coal Energy, Federation for American Coal, Energy and Security (FACES), Kentucky Coal Association, West Virginia Coal Association, Indiana Coal Council and Foundation for the Tri-State Community, Inc.

He also serves on the board of Community Trust Bancorp, Inc. (NASDAQ: CTBI), Vigo Coal, Inc. and Carbo*Prill, Inc. He is a graduate of both Leadership Kentucky and Leadership West Virginia. Prior to his current position, he was with MAPCO Coal for eight years and before that was in private law practice in Lexington, Kentucky. He holds BS and JD degrees from the University of Kentucky and an MBA from the University of Hawaii.

Within a 40-year time span, bridging the turn of the 19th century (1880-1920), central Appalachia experienced one of its greatest periods of tourism. However, those “tourists” were not hiking the Appalachian Trail or hunting or fishing. They were in search of a coming wealth, a wealth heretofore unknown in Appalachia and, indeed, in most of the United States. While coal had powered much of the industrial revolution, it really was not widely used to generate electricity until the Rural Electrification Administration came into being. And, with the advent of the automobile and the building of roads, big cities and other infrastructure, coal was needed for the rapidly growing steel industry.

There has been much debate over the years as to the impact this change in ownership had on Appalachia. From any perspective it seems that without this consolidation of ownership of large contiguous tracts of coal rights, the coal industry as we know it today would not exist.

Some of these tourists were emissaries of the wealthy families and businesses from the northeast – Philadelphia, New York City, Boston – and from railroads and steel companies. Others represented industry in nearer locales, like Lexington, Kentucky, and local lawyers and businessmen. To some extent, these tourists were looking for timber. Mostly, however, they were after the right to mine coal, which they believed



was needed to fuel the growing country and make the steel that would help the country grow.

To most Appalachians of that time, coal was of no value. The mountains were thinly populated, with no trace of industrial development and no infrastructure with which to mine or transport the coal. Further, little was known about the coal resources that lay beneath their small farms, gardens, deer stands and bear traps.

And so these representatives of wealth came into Appalachia and purchased either the mineral ownership and the right to mine it or, in many instances, they bought the farms outright. By most accounts, the prices paid were fair prices for that time, although by today’s standards they appear meager. One must always remember our mountains as they were then, largely a roadless, sparsely populated area without the railroad network that exists today.

There has been much debate over the years as to the impact this change in ownership had on Appalachia. From any perspective it seems that without this consolidation of ownership of large contiguous tracts of coal rights, the coal industry as we know it today would not exist. I believe the argument also can be made that without the fuel and raw materials supplied by the early Appalachian coal industry, the great industrial boom of the early and mid-1900s and the electrification of rural America would not have occurred.



mergers, purchasing the land and reserves and leasing to the acquiring company. They also may do sale/lease-back transactions with the mining company, thereby providing capital in lieu of debt. They also may build, own and lease infrastructure, such as prep plants, rail and barge loadouts and other capital items, thus freeing the mining company's capital for other items.

The land companies, working with the mining companies, attempt to be good stewards of the land, working to maximize the coal recovery from the property, to not be wasteful of our resources, to develop future uses for the land once mining is completed, to make the land available for public use as necessary and advisable and, in nearly every instance that I am aware of, to be good corporate citizens in our communities and our states. We, collectively, are huge taxpayers to the counties, school boards and the states.

So, in conclusion, when you see or hear the phrase, "large, out of state, landholding company," always know that many of us live here, work here, pay taxes here, send our kids to school here and love the mountains – just like everyone else who lives here. ▽

In any event, over time many of the local families who bought the coal became the stalwarts of our society in Appalachia. The names are familiar to all of us: Clay, Campbell, Caldwell, Mayo, Dickenson. These names now grace many businesses, many buildings and many charitable and scholarly organizations.

As with every business, over time things evolve and change, and such was the case with the coal land business. The steel companies, railroads, the users and the haulers of this natural resource consolidated their ownership. U.S. Steel, Bethlehem Steel, Armco, Weirton Steel and others sought ownership rights. The railroads – Chessie, B&O, N&W, Southern – all sought to control large contiguous reserves. Their preferred lessees for the coal were the steel companies, and the logic of that marriage for the railroads was impeccable: with a steel company leasing those reserves, the railroad got to haul that coal three different times (and charge for each one). First, from the mine to the steel mill; then from the mill to the manufacturer; and finally, from the manufacturer to the end user. *And* they got to charge a royalty for the mining of the coal!

Today in the coalfields, the ownership patterns are not vastly different. Many of the local companies, families and trusts which originally purchased the land still own it – and those families are in their fourth and fifth generations. Such long-term, continuous ownership is unheard of anywhere else in America. The steel company ownership is gone (as are many of the steel companies themselves), the victim of business cycles and more efficient producers of coal.

Some companies, like NRP – which was birthed from the CSXT family of companies and later with Arch Coal – are now in public ownership, large enough to trade on the stock exchanges. Many are very well known and acquisitive. Penn Virginia Resources also meets that description, having gotten its roots with Westmoreland Coal in Pennsylvania.

Today, land companies – both public and private – serve the industry as one of the financing alternatives, providing long-term assets in exchange for royalties, paid primarily when the coal is mined. The larger land companies are acquisitive, using their access to cash and public stock as means to acquire more reserves or other assets. Land companies may partner with mining companies in acquisitions or



The Future of Coal: New SEC Guidelines Usher in New Era of Carbon Disclosure

K. Scott Keim, CPG, President
Steven M. Carpenter, Director of Carbon Management
Marshall Miller & Associates

Scott Keim has held multiple positions within Marshall Miller & Associates since joining the firm 27 years ago, and is currently president of the company. Mr. Keim has conducted and supervised a multitude of major merger and acquisition studies throughout the United States, as well as feasibility studies in Australia, Venezuela, Mexico, the Czech Republic, Colombia, Canada and China.

Mr. Keim is responsible for the review and coordination of all corporate project activities, including reserve evaluations, predictive geological mapping, merger and acquisition evaluations, geological and engineering applications, feasibility studies, geologic and engineering assessments, environmental applications and geophysical operations.

He received a bachelor's degree in geosciences from The Pennsylvania State University and is a recognized member of the Society for Mining, Metallurgy and Exploration (SME) of AIME, the Central Appalachian Section of SME, and the American Institute of Professional Geologists. He is a Certified Professional Geologist in Kentucky, Virginia and Kansas.

Steven Carpenter has been providing engineering, environmental and construction services to private and public sector clients since 1986. Mr. Carpenter is a degreed physicist and has begun his pursuit of a Juris Doctor degree. As corporate risk manager, he is responsible for corporate-level decisions of risk management issues that directly impact the strategic direction of Marshall Miller & Associates. He helps set the strategic risk management vision and is charged with delivering that strategy. His experience includes the Brownfield Redevelopment Market, real estate ownership and transfer, environmental liability and cost cap insurance.

As director of carbon and international business, Mr. Carpenter is responsible for the development, solicitation, estimation and management of all carbon-related and international projects for Marshall Miller & Associates. Mr. Carpenter directs all the work as prime contractor to Southern States Energy Board's USDOE SECARB coal project in Virginia. Additionally, he oversees all carbon verification services for CCX, CSA and UNFCCC.

Mr. Carpenter has published for and spoken to numerous professional, civic and trade associations, has held public office and has been the technical director for the preparation and review of technical and scientific information used in litigation. He recently was selected as a trustee of the Eastern Mineral Law Foundation.

We have all heard different versions of the story many times, for many years:

“Coal is bad – but we need more energy.”

“We respect businesses' proprietary information – but we must know how to regulate, so share with us your data.”

“We must control environmental polluters – so additional permitting is required.”

“We must clean up environmental impacts – so additional taxes are required”

Regardless of which source you choose to cite, the demand for clean, affordable and dependable electricity is not going to decrease in the near decade or two or three! The only answer to America's electrical base load demand is our continued use and reliance on coal. As a result, federal regulators have added an additional measure of regulation and oversight to the coal industry – carbon.

Again, regardless of your political view of climate change and man's impact on Mother Nature, the federal government is, has and will continue to move full steam ahead on carbon-related issues. The coal industry will be affected in a new and significant way by virtue of the Securities and Exchange Commission (SEC) and its new guidelines for publicly traded companies regarding carbon dioxide (CO₂).

The SEC released on February 8, 2010, in the Federal Register, Release Numbers 33–9106, 34–61469 and FR–82: Commission Guidance Regarding Disclosure Related to Climate Change. These new, rather far-reaching guidelines provide a new set of interpretive guidelines for disclosure reporting relative to climate change and carbon emissions. The areas and impact include:

- Business Description – material effects and capital expenditures of compliance with environmental laws and new/expected regulations
- Legal Proceedings – any legal matter in excess of \$100,000 expenditure related to environmental compliance
- Risk Factors – significant factors that make risky or speculative any investments that include impacts of cap-and-trade and international accords
- Management Discussion and Analysis – material effect of forward-looking information from management regarding present and future effects

These disclosure areas raise serious questions about how one would reasonably address the following real-world application of the guidelines:

- “Materiality” – how executives can identify the material effect of climate change to their company
- Based on “proposed” cap-and-trade regulations, how to determine what effect the regulation will have on purchases or sales under cap and trade, the cost to reduce emissions and the increase or decrease of demand for goods produced by the company (e.g., coal)
- How to address the impact to domestic operations of international accords – Kyoto, Copenhagen, United Nations and the EU
- Indirect consequences of regulations or business trends affecting the production of coal – alternative energy and decreased “dirty energy” sources (e.g., coal)
- The “physical impacts” of climate change

It is virtually impossible to know, forecast, address and, therefore, disclose these real-world examples of potential impact with any level of certainty or confidence. The potential exists for companies, knowing the political climate and the lack of ability to “know” the true impact, to be reluctant or even dismiss or not disclose some or all potential “carbon or climate change” impact information. This can lead to the “smoking gun” of selective disclosure.

Suppose you want your company to be forward thinking, to know what your carbon footprint is, but you are not sure what to do with the information once you get it. Suppose you want to know your baseline number, but because of politics and perceptions you choose to protect your carbon footprint under attorney-client privileged information with no intention of sharing the information publicly on one of the many carbon forums or schemes (Climate Action Reserve, Chicago Climate Exchange, etc.). Better yet, based on potential merger or acquisition possibilities, you prepare carbon data for use in internal, protected due diligence. According to the SEC, if that information



is known and now not disclosed, it could be a material non-disclosure that would open the company to possible sanctions, fines and penalties.

Take this example to another extreme: You are the CEO or board member of a publicly traded coal company. You receive requests (some would say requirements) to force resolutions to be read and voted on at stockholder and board meetings. For example, entities that control enough common stock to have voting rights could ask (or rather demand) that resolutions be brought up at stockholder meetings for a vote. The resolutions are tied to climate change, global warming and the entities’ support for those causes. Their resolutions call for your reporting of how your company will respond to the rising regulatory and public pressure of the “social and environmental harm” caused by the emissions of global warming gases from your company.

If you are unwilling to even allow this resolution to be brought to the floor for a vote, you are obligated with the fiduciary responsibility and the choice of knowing that not doing so could cause these “resolution supporters” to dump their shares. Or, if you, as the CEO, choose to bring this to the floor for a vote, it could cause those on the other side of the

political spectrum to question why a “coal producer” is concerned with the social harm of climate change. Moreover, how can a CEO address the perceived issues related to climate change? Again, you are in a situation that is governed by your fiduciary responsibilities.

Given these scenarios, there appears to be a very likely no-win situation. In the days of old, the best opportunities came from win-win scenarios. Today, those have become no-win or worse, lose-lose. ▽



Challenges Facing EMLF Members Include Demand, Debate and Danger

Kirsten L. Nathanson, President
Energy & Mineral Law Foundation

Kirsten L. Nathanson is a partner in the environment and natural resources group of Crowell & Moring. Her law practice primarily involves environmental litigation, enforcement defense, risk assessment and regulatory counseling under all major federal environmental and public lands statutes.

She has represented national trade associations and individual regulated entities in nationwide regulatory challenges, Administrative Procedure Act litigation, EPA civil and criminal enforcement actions, CERCLA cost recovery actions, brownfield redevelopments, and citizen suit litigation, including the first Endangered Species Act citizen suit against a wind energy project. She also represents corporations involved in complex multi-party Superfund sites, including the Berry's Creek Study Area and the Lower Passaic River Study Area.

Ms. Nathanson currently serves as president of the Energy & Mineral Law Foundation and also leads the Crowell & Moring Women Attorneys' Network.

She received her undergraduate degree, *cum laude*, from the University of Pennsylvania and earned her law degree, with high honors, from George Washington University Law School.

The Energy & Mineral Law Foundation (EMLF) is a non-profit educational organization providing information on legal issues related to the energy and mineral industry. As the organization's incoming president, Kirsten Nathanson delivered the following speech at the EMLF conference at Amelia Island, Florida, on May 9, 2010:

EMLF's mission is to "foster the study of energy, mineral and natural resources law through quality, cost effective and timely education, and [to] provide a continuing forum for industry, government, attorneys, legal scholars and the general public to engage in an intellectually honest examination of the legal issues involved in energy and natural resources development." And it is with that mission that I want to start the conversation about the coming year.

While EMLF has been acting under that mission for over three decades now, I don't believe there has ever been a time when it is more needed or relevant. And I say this because I see three forces in play that demand the forum EMLF provides and the expertise of its members and invited speakers as thought leaders on energy and mineral law. Those three forces are demand, debate and danger.

By **demand**, I'm referring to the unprecedented demand for energy across the globe today. With the modern industrialized nations, China, India and the other fast-growing emerging economies, we are seeing a demand for energy production and natural resource extraction that is unparalleled in human history. That demand is driving innovation in new technology, new energy sources and a pressing need to understand the ever-changing markets. EMLF meets that need by sharing the expertise of those such as president-elect John Boyd, as well as the excellent talent of Jerry Eyster and Bruce Reed, the architects of our winter workshops, which

provide the cutting-edge market and business information and commentary we all need to be effective professions in these volatile times.

Second, because of the demand, the **debate** over energy policy has never been so diversified, global and perhaps strident. From policy decisions come legislation, regulations and enforcement, which all insert the lawyers into the energy marketplace. EMLF's programs actively contribute to this debate by educating our members on the changing regulatory and litigation environments due to climate change policy, renewable energy sources and new extraction technologies. Not only will you be hearing about these issues at this Institute, but there are two new programs in the coming year

From policy decisions come legislation, regulations and enforcement, which all insert the lawyers into the energy marketplace. EMLF's programs actively contribute to this debate by educating our members on the changing regulatory and litigation environments due to climate change policy, renewable energy sources and new extraction technologies.

where EMLF will lead. First, we are offering a climate change course in August, where you can hear from some of this area's top thought leaders from academia, industry and government. We also are teaming with the Rocky Mountain



Mineral Law Foundation to bring a conference in December on the Marcellus Shale plays that are driving so much opportunity and risk within the shale's reach. While I am proud of these programs and EMLF's contributions to the dialogue, we must not rest on our laurels. We must continue to identify and deliver relevant programs on the current and pressing issues facing the energy sector in the debate, and I welcome input from each of you to meet the mission.

Finally, a word about the forces of **danger** that permeate the energy and mineral sectors like no other. Recent events in West Virginia, Kentucky and the Gulf highlight the daily courage of those who choose a livelihood that is not behind a desk with suit and tie, but one that goes underground and on the open water to provide the resources all of us need to pursue our considerably safer and more comfortable pursuits. On a personal note, I am the granddaughter of a West Virginia coal miner, the niece of a retired Upper Big Branch miner and the daughter of someone who lost a childhood acquaintance at Upper Big Branch last month. The risks of procuring energy are a part of me and also should be integral to the Foundation's work. And so the

Foundation should continue to deliver the discussion and analysis of the myriad legal and business issues that flow from that risk. The recent mine safety institute in Washington, DC, just weeks before Upper Big Branch, is but one example, and the speakers over the next two days provide another, as the legal and regulatory landscape changes in the wake of recent events. I want EMLF to be tapping the best resources we can offer our members on how to navigate what will undoubtedly be a difficult road ahead.

I want to close this year's Board meeting by asking each of you to share with me over the next two days what you would like to hear more about at EMLF's programs. What is keeping you up at night, what is your blind spot, what are your needs on the interaction of business and law in the energy and mineral fields?

I am a federal environmental litigator, so from my desk I see the legal theories that citizen group opponents and federal regulators bring and the new uses they make of our environmental laws, and I stand before judges who grapple with the new conflicts. My specialization means there are things that I don't always see – labor challenges, transactional issues and

drivers of commercial contract disputes come to mind. So not only do I want to hear from you, I need to hear from and work with you to fulfill EMLF's mission and my own as president. I very much look forward to the year ahead and appreciate and am humbled by your support and trust. ▽



CSXT's Present and Future are Part of the Evolution of Coal

David Hall, Vice President for State Government and Community Affairs
CSX Transportation, Inc.

David Hall is resident vice president for state government and community affairs at CSX Transportation, Inc. Based in Louisville, Mr. Hall manages the company's state and local government activities in Kentucky.

Mr. Hall joined CSXT in 2000 as director of media relations and served as company spokesman in seven states. Prior to joining CSXT, Mr. Hall was director of member relations for East Kentucky Power Cooperative in Winchester, Kentucky. He also worked 10 years as a journalist at newspapers in Florida, Kentucky and North Carolina.

He serves as an advisory board member of the Kentucky Governor's School for the Arts and as a member of the Kentucky Emergency Response Commission.

Mr. Hall received his B.A. degree in English from the University of Kentucky.

Coal is an important commodity for the citizens of Kentucky and the nation. It is also important for CSX Transportation (CSXT), which operates over nearly 3,000 miles of track in the Commonwealth and employs 2,700 people.

Today, approximately half of the electricity America relies on each day is generated by coal. It is our country's most abundant fuel, according to the U.S. Department of Energy; America has more than 250 billion tons of recoverable coal reserves, the equivalent of 800 billion barrels of oil. That is more than three times Saudi Arabia's proven oil reserves.

In 2009, CSXT moved approximately 160 million tons of coal, almost entirely in unit trains. Three quarters of that coal was destined for electric power plants somewhere in the eastern United States. The remaining coal moves to steelmakers, export terminals and industrial accounts. On a typical weekday, coal mines served by CSXT load 50 unit coal trains, ranging in size from 75 to 150 cars each. CSXT typically has about 600 locomotives in coal service.

CSXT is proud to be an important link in the logistics chain to fuel power plants along our network, and is committed to providing customers with safe, reliable, cost-effective transportation, meeting their coal procurement demands.

One of our customers' growing needs is geographical sourcing options. CSXT obtains coal from 10 U.S. states (West Virginia, Kentucky, Pennsylvania, Alabama, Ohio, Indiana, Illinois, Virginia, Maryland and Tennessee) and receives coal from other railroads originating in four states (Wyoming, Montana, Colorado and Utah). However, most of the coal we ship originates in Appalachia. Recently, CSXT has experienced increased volumes from the Illinois Basin coal as an alternative sourcing option to Appalachia.



Illinois Basin coal is bituminous coal, originating in Illinois, Indiana and Kentucky.

Coal is one of CSXT's largest revenue sources, generating nearly 30 percent of total revenues in 2008 and, as such, is important to our total annual business. As with other commodity markets in 2009, however, those revenues were down by 24 percent year over year. Recently, coal exports to China and other countries have picked up significantly, which will offset the somewhat slow domestic market – the latter a result of the economic recession, low natural gas prices and lowered electrical consumption by U.S. businesses and residential users. For many years, our railroad has played a role in fulfilling the worldwide demand for coal. CSXT delivers coal to five coastal export terminals for delivery to non-U.S. plants.

Technology, Streamlined Service Aid Efficient Rail Movements of Coal

In the past few years, CSXT has transitioned from about 90-car train size for movements of coal to average 110-car trains in the southeast. Train lengths of up to 150 cars are employed in the northeast. In addition, CSXT is adding more 286,000-lb.-capacity rail cars to replace earlier 263,000-lb.-gross-weight rail cars. With those larger train sizes and weights, technology-assisted assignment of heavier locomotive sets has been initiated to maximize efficiency in the railroad's heaviest coal routes.



CSXT is proud to be an important link in the logistics chain to fuel power plants along our network, and is committed to providing customers with safe, reliable, cost-effective transportation, meeting their coal procurement demands.

CSXT also has made significant investments in its computerized, web-based coal reservation system, allowing mines, coal receivers and the railroad to develop coordinated, real-time logistics plans. Many additional technology enhancements are on their way.

What is The Future of Coal?

First, while we see domestically abundant coal as a critical part of our nation's future

energy mix and economic well-being, we also view the current dialogue on energy and environment as critically important. We agree with energy analysts that only with a balanced energy portfolio, using all of our available domestic energy resources – coal, natural gas, nuclear, wind, solar and hydroelectric – will the United States be able to meet growing electricity needs and still keep energy supplies reliable and affordable.

We believe that new, breakthrough technologies must be developed and commercially deployed before the United States' economy can sustain significant reductions in greenhouse gas emissions. Freight rail can help address climate change, and CSXT wants to be part of the solution.

The railroad industry also supports federal policies to achieve meaningful reductions in greenhouse gas emissions in the utility sector, while at the same time protecting energy security and fuel diversity and keeping energy costs affordable for consumers. In fact, under the Climate

Leaders program, CSXT has committed to an eight percent reduction in greenhouse gas intensity by 2011. ▽

The Federal Mine Health & Safety Act of 1969 – 40 Years and Counting

Rebecca J. Oblak, Partner

Todd C. Myers, Partner

Bowles Rice McDavid Graff & Love LLP



Rebecca J. Oblak is a partner in the Morgantown office of Bowles Rice and concentrates her practice in mine safety and health litigation. She earned a bachelor of science degree, *cum laude*, and master's degree from Ohio University and a doctor of jurisprudence degree from the Capital University Law School in Ohio.

Ms. Oblak has represented mine operators, independent contractors and quarry operators in the areas of federal (Mine Safety & Health Administration under the 1977 Mine/2006 MINER Acts) and state violations involving safety and health issues, 110(c) special investigations, 105(c) discrimination cases, MSHA safety conferences and fatalities within West Virginia, Ohio, Virginia, Maryland, Pennsylvania and Colorado. She also conducts health and safety training seminars for mine management personnel and independent contractors as they relate to the federal and state mining laws and regulations.

She is admitted to practice in West Virginia, Pennsylvania, the District of Columbia and the United States Supreme Court and the U.S. District Courts for the Southern and Northern Districts of West Virginia. She is a member of the WV Coal Association, National Mining Association, Holmes Safety Association, Kentucky Coal Association and the Energy and Mineral Law Foundation.

Todd Myers is a partner in the Lexington, Kentucky, office of Bowles Rice and focuses his practice on general litigation, employment law and mine safety and health litigation. He has represented employers in a variety of matters in state and federal courts, including discrimination claims, workers' compensation and Federal Mine Safety and Health litigation. He also has an active general litigation practice including insurance defense, professional negligence, construction litigation, motor vehicle accidents and commercial litigation.

Mr. Myers earned his law degree, *cum laude*, from Northern Kentucky University Salmon P. Chase College of Law. He received a bachelor's degree in business administration, with an emphasis in finance, from Transylvania University in Lexington, Kentucky.

He has volunteered with Junior Achievement, teaching Lexington elementary students about business and economics, served on the ambassador committee for Commerce Lexington and is a 2007 graduate of Leadership Lexington.

Coal is the United States' most abundant and plentiful fossil fuel, and it is estimated that our country has one-quarter of the world's coal reserves – enough to provide our energy for the next 200 to 300 years. Although the country has numerous energy sources (i.e., bioenergy, hydrogen, hydropower, natural gas, nuclear, oil, solar, wind, etc.), coal provides our nation's electric power industry with more than 50 percent of the electricity consumed by Americans.

In the United States today, the two primary methods of extracting coal are surface mining and underground mining. When coal appears as one of many layers of materials near the surface, "surface mining" is the mining method used to remove overlying layers of material to expose and extract the coal. When coal is found in layers far beneath the surface, "underground mining," by either drift, shaft and/or slope mining methods is used. In underground mines, coal is brought to the surface by small coal cars or conveyor belts and then transported by truck, ship, railroad or barge.

The underground mining industry drastically changed during the early hours of November 20, 1968, when an explosion occurred near Farmington, West Virginia. Seventy-eight miners working the midnight shift did not escape that explosion, and there were no mine rescue teams available to assist with a rescue. The mine was sealed several days later and became the tomb for the miners lost in that terrible tragedy. One month after the Farmington disaster,



Rebecca Oblak (right) directs the Mine Safety and Health Team at Bowles Rice

the U.S. Department of Interior (i.e., the Bureau of Mines) held a safety conference, and the Secretary of Interior announced that, "...the people of this country no longer will accept the disgraceful health and safety record that has characterized this major industry...." As a result, on December 30, 1969, the Federal Coal Mine Health and Safety Act of 1969 (the Coal Act) was signed into law by President Richard M. Nixon.

The Coal Act was the turning point in the improvement of occupational health and safety in the United States. The purpose of the bill was to protect the health and safety of persons working in the coal mining industry in the United States, then considered the "most hazardous occupation in the United States."¹

The Federal Mine Safety and Health Act of 1977, Public Law 91-173 as amended by Public Law 95-164, renamed the Mine Enforcement Safety Administration (MESA) as the Mine Safety and Health Administration (MSHA). Subsequent regulatory enactments followed: The Mine Act of 1977 and the Mine Improvement and the New Emergency Response Act of 2006 [MINER Act].

On March 23, 2010, MSHA commemorated the 40th anniversary of the enactment of the Federal Coal Mine Health & Safety Act of 1969. Assistant Secretary of Labor Joe Main stated that Congress declared in the 1969 Act that, "...the first priority and concern of all in the coal mining industry must be the health and safety of its most precious resource – the miner...." Since that time there have been new regulatory legislation and improved mining technologies with established safety and health standards. The mining industry has made employee safety and health its highest priority by the utilization of advanced technology, miner safety and training awareness and regulatory reform by federal and state agencies.

As a result of the MINER Act passed by Congress in 2006, the continued



Rebecca Oblak has represented mine operators in several states

efforts and great financial investment in complying with the Act's provisions by mine operators and the support of labor and federal and state agencies, the success in improving safety, training and emergency preparedness in underground mines remains the highest priority. The mining industry has invested \$800 million since 2006 on mine safety improvements such as more than 150,000 new self-contained self-rescuers (SCSRs); quarterly training in the use of SCSRs; emergency evacuation training; evacuation aids, i.e., lifelines in escapeways, additional SCSR caches, emergency tethers, etc.; manual underground tracking systems and Emergency Response Plans (ERPs); post-accident communication systems; sealing of abandoned areas of mines; approved mine plans regarding breathable air and 45 new underground coal mine rescue teams have been, or are, being planned.

These continued efforts reduced the total miner injury rate by 64 percent from 1990 to 2009 and the number of fatalities (by 49 percent from 2002 to 2009). (See NMA statistics). U.S. mine operators are committed to reaching the goal of zero fatalities and serious injuries with the highest priority being Congress's declaration in 1969 that "...the first priority and concern of all coal mining industry must be the health and safety of

its most precious resource - the miner..." For more information about the Mine Safety and Health legal team at Bowles Rice, visit our website: www.minesafetylawyers.com. 

Footnotes:

¹91st Congress, 1st Session, House of Representatives, Public Law 91-173, S 2917, signed into law December 30, 1969

References:

United States Department of Labor, Mine Safety and Health Administration (MSHA) at www.MSHA.gov;

United States Department of Labor, Mine Safety and Health Administration (MSHA) from the Assistant Secretary's Desk March 30, 2010;

National Mining Association; www.NMA.org

United States Department of Energy at www.energy.gov



Coal and Community Development at Mylan Park

Greg Morris, Executive Director
Mylan Park

Greg Morris is the executive director of Mylan Park, overseeing and coordinating the efforts of non-profits, schools, athletic leagues and large special events.

He also is chief executive officer of PACE Enterprises, a nonprofit that provides job training and placement for people with disabilities. PACE recently moved into a 22,000-square foot facility at Mylan Park.

Mr. Morris was appointed as the deputy chief of staff for the U.S. Department of Health and Human Services (DHHS) in April 2007. In this capacity he played a key role in guiding the policy and operating direction of the largest grant-making agency in the federal government.

He served DHHS as the director of the Center for Faith Based and Community Initiatives from 2004 to 2007, and as chief of staff and senior advisor to the administrator of the Substance Abuse and Mental Health Services Administration from 2001 to 2004.

From 1998 to 2001, Mr. Morris served as the executive director of the West Virginia Health Care Authority, following 10 years as the founder and managing partner of a successful healthcare-related business.

He earned a bachelor of science degree in business and economics from West Virginia Wesleyan College and an MBA from West Virginia University.

Just west of I-79 Exit 155, near Morgantown, West Virginia, a surface coal mine opened in the 1970s. After more than a decade of responsible coal extraction, providing energy and jobs, the property began reclamation.

In the late 1990s, increased sports participation, especially softball, in the Morgantown community resulted in a shortage of fields for high school baseball and softball teams. Two people, each with a child affected by the shortage – along with a group of interested community members – decided to do something about it. The two of them envisioned an athletic complex that would benefit the citizens of north central West Virginia. Mylan Park is the result of that conversation.

One of the men was Mark Nesselroad, chief executive officer of Glenmark Holding, a man with development experience and community credibility. His ally was Bruce Sparks, president of Anker Energy, who donated the first 30-acre parcel from Anker. Working together, they were able to build a coalition of coal, government, non-profits, event promoters and education, which grew into the Monongalia County Schools Foundation and is now known as Mylan Park Foundation, Inc.



In 2000, Governor Cecil Underwood threw out the first pitch at each of the four Anker Fields (two baseball and two softball) to demonstrate his attention and support. In the decade that has followed, the Anker Fields at Mylan Park have grown into one of the region's premier high school athletic facilities. This year, Mylan Park celebrated its tenth anniversary with a dinner themed "Turning Coal into Diamonds."

And truly, coal became a diamond. The initial 30 acres has grown to more than 300 acres and has become an engine for economic development. Today over 400 people report to work every day within the friendly confines of Mylan Park. Most importantly, it became a true recreational and educational facility, serving the people of north central West Virginia.



What 10 years of cooperation between coal and community can accomplish. Mylan Park has transitioned from active mining to an educational and recreational campus serving West Virginia



The Hazel and JW Ruby Community Expo Center



Miracle Field located at Mylan Park

- Stepping Stones – a non-profit organization dedicated to helping people with disabilities achieve their maximum level of independence
- PACE Enterprises – a community rehabilitation program that assists persons with disabilities to become employable in the private sector
- Girl Scouts – an office providing support and service to 29 counties in West Virginia, Maryland and Ohio
- Big Brothers/Big Sisters of North Central West Virginia – an office committed to providing children with positive, caring adult mentors

Mindful of the educational roots of Mylan Park and the early innovation of the Monongalia County Board of Education, the park also is home to:

- Mylan Park Elementary – opened in 2007 and serving K-5 students
- Alternative Learning Center – serving at-risk high school students
- Transportation Center – maintenance and training facility for school busses

But more than anything else, Mylan Park shows the far-reaching impact of the coal industry. After creating jobs and providing energy, coal continues to enrich the lives of West Virginians at Mylan Park. We invite you to visit us at one of our events, or to bring your event to Mylan Park. ▽

Mylan Park is the home of many events and festivals. It serves as home to MountainFest, WVAQ / WAJR Chicken Wing Cook-off, Scott's Run Ribfest, Brewfest, University Balloon Festival, and the Monongalia County Fair. A major annual event is the Mine Safety Training Competition, which brings regional mine rescue teams to demonstrate their disaster preparedness skills during a mock mine emergency. There are many other events at Mylan Park that include fundraisers, reunions and sporting events.

The Pro Performance RX and Pro Medical Rehabilitation indoor sports-specific training center opened in 2006. This massive for-profit facility features a 270 foot by 180 foot indoor FieldTurf arena adjacent to a 28,000-square foot strength and conditioning center. This sports training facility allows leagues,

camp and clinics to assist individuals and teams in achieving their training goals.

The 53,000-square foot Hazel and JW Ruby Community Expo Center is the largest venue between Charleston and Pittsburgh. It has hosted everything from small fundraisers for fire departments to huge trade shows. It can seat up to 4,500 people or host a trade show, with 220 exhibitors inside and over 300 exhibitors outside.

Mylan Park also serves as host and incubator to non-profit community services organizations, including:

- West Virginia Miracle Field Sports Complex – a completely rubberized sport service for baseball players with disabilities, the third of its kind in the country



Does EPA Regulation of Surface Mining Constitute a Compensable Taking?

C. Seth Wilson, Partner
Bowles Rice McDavid Graff & Love LLP

Seth Wilson is a partner in the Morgantown office of Bowles Rice and a member of the Energy and Real Estate Development group. He practices in the areas of tax, energy and real estate development, commercial real estate law, mineral law and general business law.

Seth has a broad real estate and mineral law practice that involves assisting clients with structuring, negotiating and closing real estate transactions, like kind exchanges, all types of commercial, residential and mixed-use developments, commercial lease transactions, the examination of mineral titles, curative title work and the sale and acquisition of coal, oil, gas and timber properties. Seth has also represented clients in the areas of zoning, land use planning, foreclosure and landlord/tenant.

Seth graduated *summa cum laude* with a bachelor of science in economics from West Virginia University. He obtained his law degree in 2001 from the West Virginia University College of Law, where he graduated with distinction as a member of the Order of the Coif. While attending law school, he served as president of the Student Bar Association and was inducted into Mountain, West Virginia University's highest ranking honorary. He is a member of the 2005 Class of Leadership West Virginia. He is the coordinator of the Bowles Rice Summer Clerk Program and a member of the firm's campus recruitment committee.

On April 1, 2010, the United States Environmental Protection Agency issued a memorandum entitled "Detailed Guidance: Improving EPA Review of Appalachian Surface Coal Mining Operations under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order." The net cumulative effect of the EPA's Detailed Guidance is to indefinitely delay the start of new and proposed surface mines and to threaten the viability of existing operations.

To those within the mining industry, it certainly appears that the EPA is attempting to accomplish by regulation what has not been accomplished to date by legislative or judicial means – the abolition of surface mining operations in Appalachia. The logical legal question to follow in the event that the EPA is successful in its efforts to regulate surface mining to certain death, is whether such regulation rises to the level of a confiscatory taking for which just compensation is due.

It has long been held that government regulation which acts to deprive a landowner of all "economically viable or productive use" of his property is tantamount to a "taking" under the Fifth Amendment of the United States Constitution. Such a finding naturally results in the landowner being awarded "just compensation" for his land. As the United States Supreme Court articulated in *Lucas v. South Carolina Coastal Council*, 112 S.Ct. 2886, 503 U.S. 1003 (1992), when government regulation

extends beyond what adjacent landowners (or other affected parties) could accomplish under private nuisance laws, or what governmental agencies could otherwise do under their power to abate public nuisances, and eliminates all economically productive or beneficial use of the subject land, then compensation is due the landowner.

The logical legal question to follow in the event that the EPA is successful in its efforts to regulate surface mining to certain death, is whether such regulation rises to the level of a confiscatory taking for which just compensation is due.

Factors to be considered in determining whether government regulation constitutes a compensable, total taking include:

1. the degree of harm to public lands and resources, or adjacent private property, posed by the subject landowner's proposed activities,
2. the societal value of the subject landowner's proposed activities and the suitability of such activities to the locality in question,
3. the relative ease with which the alleged harm can be avoided through measures taken by the subject landowner and the government (or adjacent landowners),
4. whether other similarly situated landowners have regularly engaged in the proposed activities,
5. whether other similarly situated landowners are permitted to continue engaging in the proposed activities being denied to the subject landowner, and
6. the extent to which the regulation has interfered with the distinct, investment-backed expectations of the subject landowner. See *Lucas*, supra.



A New Beginning for Mingo County... Partnerships, Planning and Opportunities

Mike Whitt, Executive Director
Mingo County Redevelopment Authority

Mike Whitt has served as executive director of the Mingo County Redevelopment Authority since 1990. He is a 1975 graduate of Marshall University, with a bachelor's degree in physical education and health, and a 1988 graduate of Marshall University, with a master's degree in education administration. A former coal miner and educator, Mr. Whitt served in the West Virginia House of Delegates before accepting the position with the Redevelopment Authority.

He is the former chairman of the Hatfield-McCoy Regional Recreation Authority and a member of the West Virginia State Recreational Trails Advisory Board, the West Virginia Economic Development Council and the Tug Valley Chamber of Commerce. He also is a member of the Williamson Memorial Hospital Board of Trustees.

Mingo County, the state's youngest county, is nestled away in the heart of what has long been referred to as the "Billion Dollar Coal Fields." For decades, the county's economy was heavily centered around the coal industry for both direct and indirect forms of employment, and revenues generated by the coal severance tax have long supported our county's educational system and public services. In recent years, however, the trend toward more automated mining methods provoked a loss of good-paying mining jobs, and our rural economy was plagued by a lack of new opportunities. Sites for new development were the obvious ingredient for creating new jobs, but our county is riddled by steep topography and flood prone valleys. Cue the land use planning and the partnerships ... and Mingo County is witnessing its economic rebirth!

Spearheaded by the Mingo County Redevelopment Authority (MCRA) and the



*The roadbed for the I-73/74 King Coal Highway
in Mingo County, West Virginia*

coal industry, the planning process began with the idea of creating unique development opportunities by configuring post-mined lands into usable sites that would be suitable for various types of development, such as industrial parks, highways and airports, once mining activity was complete. The collaborative efforts of the MCRA, coal companies, land owners and state and local regulatory agencies resulted in the 2001 Legislature's adoption of Senate Bill 603, which allows all county governments to adopt a Land Use Master Plan (LUMP). Mingo County's was the first one to be adopted.

Mingo County commenced early collaborations between the MCRA, mining companies, land owners, county agencies and state and federal regulatory agencies to implement the LUMP by designating specific post-mine land uses on the front end of new mining activities as they were being contemplated. These land uses would benefit the citizens of Mingo County by affording new development opportunities, and the participating coal companies could incorporate the LUMP as their post-mine land-use designation for the permitted mining operations.

This planning process and the implementation of these partnerships have been a godsend to Mingo County. Our successes have been great, and sites currently are being created in our beautiful countryside for an industrial park, an air transportation park, a roadbed for the I-73/74 King Coal Highway, a new consolidated high school, a 4H/youth camp, an energy park which will be the home of Mingo County's coal-to-gasoline plant and hundreds of acres for industrial, commercial, residential and recreational facilities.

Wood Products Industrial Park

One of Mingo County's first post-mine land use projects is the Wood Products Industrial



An aerial view of the Wood Products Industrial Park located near Holden, West Virginia



The future site of the coal-to-gasoline conversion plant near Gilbert, West Virginia

Park, which is situated on nearly 200 flat acres of post-mined land near Holden, West Virginia, and which currently is home to three very successful businesses. Columbia Flooring, with an approximately \$45 million capital investment, operates the dry kiln facilities and hardwood flooring plant, which together employ nearly 300 people. Columbia is a wholly-owned subsidiary of Mohawk Flooring, one of the world's largest floor covering companies.

Coal-Mac, Inc., an Arch Coal subsidiary, operates an engineering and administrative

office at the Wood Park and employs approximately 50 professionals at this location. Coal-Mac's capital investment is approximately \$300,000.

Wright Concrete & Construction, Inc., the newest client at the Wood Products Industrial Park, is a full-service concrete and construction contractor, specializing in all aspects of the coal mining industry. Wright has invested approximately \$1 million in its batch plant and regional office facilities and expects to employ 80 people at this operation by the end of 2010.

In 2012, the West Virginia Army National Guard plans to construct a 48,000-square foot readiness center at the Wood Park, a capital investment of approximately \$15 million. The new center will consolidate the Mingo and Logan Counties National Guard facilities and will house the 150th Armored Reconnaissance Squadron and the 156th MP Detachment.

In late 2009, American Clean Energy announced plans to construct a nearly \$300 million wood-fired power plant at the Wood Products Industrial Park. The 60-megawatt plant will use approximately 800,000 tons of wood residue per year and will create approximately 80 direct jobs and at least 80 indirect jobs in the wood industry. Construction is expected to begin in late 2010.

In addition to these very lucrative businesses, there are approximately 75 acres at the Wood Products Industrial Park which have been developed with infrastructure and are ready for immediate occupancy. The MCRA is currently marketing these sites for new business and industry opportunities.

I-73/74 King Coal Highway

More recently, as a result of the LUMP, the MCRA formed a partnership with Premium Energy, a subsidiary of Alpha Natural Resources, to construct a three-mile section of the I-73/74 King Coal Highway as a post-mine land use project. Another partnership was formed with Nicewonder Contracting, a number of land companies and state and federal highway administrations to concurrently construct an additional 12 miles of the King Coal Highway.

Both Premium Energy and Nicewonder Contracting agreed to construct to rough grade these three- and 12-mile sections of road in accordance with all state and federal specifications. These projects have resulted in a savings to taxpayers of millions of dollars. Construction of the entire 15 miles to rough grade, which began in 2004, is nearly complete. Currently, the West Virginia Division of

(continued on p. 65)



Legal Aspects of CO₂ Sequestration

Spencer D. Noe, Partner
Bowles Rice McDavid Graff & Love LLP

Spencer D. Noe is a partner in the Lexington, Kentucky office and practices in the areas of litigation, energy law, insurance and commercial law.

Mr. Noe served as Assistant Commonwealth Attorney for Fayette County, 1970-1972, and is a former executive director of the management committee of the State Republican Party. In 2004, he served as Kentucky Counsel to the Bush-Cheney Committee. Mr. Noe also was counsel to the Kentucky State Republican Party and a member of the Executive Committee for the Kentucky Center for Public Issues.

Mr. Noe is a graduate of Tennessee Wesleyan College, B.S. 1965, and obtained his law degree in 1967 from the University of Tennessee. He is a member of the Fayette County, Kentucky, Tennessee and West Virginia Bar Associations.

What is carbon sequestration? In general terms, it is the process of injecting carbon dioxide (CO₂) deep into the microscopic pores of the various rock, minerals and strata of the earth in such a manner that it cannot escape and enter the atmosphere, thereby not polluting the atmosphere.

If CO₂ sequestration becomes a reality, the legal aspects will have to be considered. In considering the legal aspects of CO₂ sequestration, one must understand what CO₂ is, where it comes from, and what is sequestration. CO₂ (carbon dioxide) is one of several chemicals that are classified as a greenhouse gas, which a majority of scientists claim is contributing to global warming. There are numerous studies that cite non-CO₂ greenhouse gases, such as methane – produced in animal agriculture by herds of grazing livestock, such as cattle and sheep – as being more responsible for global warming than CO₂. Carbon sequestration, however, is receiving a great deal of attention as a potential remedy for the CO₂ emissions from electrical power plants that burn fossil fuels.

Sequestration has become important in the past few years because there is a concerted effort on the part of both federal and state governments and several European countries to clean up the atmosphere. This is readily determined by reviewing the EPA standards and its overall mission in maintaining a clean environment, as well as the Clean Water Act, the recent cap-and-trade legislation and the interest shown by several states which are considering CO₂ sequestration.

With the development of any new business or venture, new legal issues develop. In CO₂ sequestration, legal issues may very well arise in the transportation, injection and underground storage of CO₂. There almost certainly will be

issues with transportation, because CO₂ will be moved by truck, train and/or pipeline. In these matters, one can expect the usual rules of transportation law and tort law to apply.

When CO₂ is injected, it might be reasonable to rely on the current law concerning the drilling of oil and gas wells. One also could reasonably expect a state regulatory commission will be created to supervise the drilling and injection of CO₂. There are a substantial number of state court cases deciding issues involving the drilling of wells, fracturing earth strata to enhance oil recovery, utilization and pooling of oil and gas leases, and the storage of natural gas underground. You can expect the court to rely, to some extent, on these cases when CO₂ sequestration issues arise.

West Virginia has enacted legislation calling for a study of CO₂ sequestration, with the report due on July 1 of 2010. The Kentucky General Assembly, in a special session in 2007, passed House Bill 1 which allowed for and provided funds for a CO₂ sequestration test well. This well has been drilled and injected in Hancock County, Kentucky. In obtaining the property rights to drill and inject, both the owner of the surface rights and the owner of the mineral rights had to be considered. This well is considered a success, in that it accomplishes what was expected. To date, Kentucky courts have not considered a case as to whom owns the property rights of the microscopic pores. If the site is owned in fee simple, one would only have to obtain the permission from the fee simple owner (fee simple ownership represents absolute ownership of real property). However, the Kentucky test well site involved a surface owner and a mineral owner. Since Kentucky courts have not ruled on pore ownership in this situation, it was decided that a lease would be entered into with both owners.

Since Kentucky and West Virginia have not been confronted with the issue as to who owns the microscopic pores, it is likely that they will rely upon common law principles of real property and mineral law. Professor Owen L. Anderson, in an article entitled *Geologic CO₂ Sequestration: Who Owns the Pore Space*,¹ expresses the opinion that if the property is owned in fee simple, the fee simple owner owns all of the property, including the pores. However, if the property has been divided into a surface and a mineral estate, Professor Anderson is of the opinion that unless pores are specifically conveyed with the mineral estate, they remain the property of the surface owner. He also is of the opinion that the pores are not conveyed by implication. Professor Anderson states that the minority opinion is that the pores are the property of whoever owns the strata, which would be the owner of the mineral estate.

If one cannot obtain property rights for injection, and if injection is deemed for the public benefit or interest, the right of eminent domain may be available to condemn pore space and the necessary surface. Eminent domain is available in some states now for underground natural gas storage.

Once injected, CO₂ may, on occasion, drift into and across boundary lines. In a case of this nature, it may create a trespass or nuisance, which could present liability to the injector. There are reported cases of trespass damages being allowed in oil and gas recovery and coal recovery. Also, there have been damages allowed in fracturing cases, when it is necessary to fracture the strata to extract and recover additional oil and gas. However, the Hancock County injection was to a depth of 8100 feet, and it may be very difficult to prove damages at such depth – or at any depth that injection may occur, for that matter.

Once CO₂ has been sequestered in place, another legal question may be who, then, owns the CO₂ – is it the injector or the owner of the pores, or will the state enact legislation to the effect that it is owned by



The carbon sequestration test well, located in Hancock County, Kentucky

the state? CO₂, natural gas or nitrogen are currently used in enhanced oil recovery (EOR), and it seems that injected CO₂ in carbon sequestration may be treated the same as the CO₂ used in EOR cases. In Kentucky, EOR by CO₂ injection is currently regulated by the Division of Oil & Gas of the Energy and Environment Cabinet and the EPA. If too much CO₂ is injected in the EOR process, one could cause a trespass of CO₂ and other minerals into the strata of adjacent property owners, which could result in civil damages. Therefore, EOR is controlled by regulation and the common law.

These are only a few of the legal issues that can be created from CO₂ sequestration. Besides the common law principles that have been applied to mineral law, it is likely that states will set up regulatory commissions to monitor and permit CO₂ sequestration in conjunction with current

EPA guidelines and standards. However, a commission cannot determine property ownership rights. Compliance with a commission's regulations may preclude punitive damages. Whether CO₂ sequestration becomes a viable method of disposal depends upon the economic incentives – both positive and/or negative – to inject. ▽

I wish to express my appreciation for the information provided during the writing of this article by Brandon C. Nuttall, Geologist, University of Kentucky Energy and Minerals Section; Katharine Lee Avary, Petroleum Geologist and Manager, Oil and Gas Program of the West Virginia Geological and Economic Survey; and Sara Smith of the Smith Management Group.

¹*The Wyoming Law Review, Vol. 9, 2009, No. 1*



Coal: An Important Part of West Virginia's Past – and Its Future

Andrew Jordon, President
Pritchard Mining Company, Inc.

Andrew Jordon is a Charleston, West Virginia, native and a mining engineering graduate of Penn State University. He has worked in the West Virginia coal industry for 33 years and has owned and operated Pritchard Mining Company, Inc. since 1991.

Pritchard Mining Company has mines in Kanawha and Boone counties. In addition to its business successes, Pritchard Mining has compiled an enviable record in safety, reclamation and community involvement. The company won a national reclamation award and is a regular at ceremonies for the Mountaineer Guardian Mine Safety Awards. Mr. Jordon served two terms as chairman of the West Virginia Coal Association.

Additionally, Andrew Jordon and Pritchard Mining serve West Virginia. Mr. Jordon is on the board of directors of Charleston Area Medical Center Foundation, the University of Charleston and the Charleston Civic Center.

In addition to other projects that serve the community, Pritchard Mining donated all the construction for the new driving range at Coonskin Park and was a principal donor of the construction of the soccer fields at Trace Fork and the reconstruction of John Adams Middle School football and soccer fields.

When I was asked to write an article discussing the future of coal, I immediately started thinking of the past and how technology has affected the way we mine coal and its use. Coal is the fuel that forged the steel that helped build this country, as well as win its wars. The electricity that all of us take for granted is generated by coal. Many people do not understand that the quality of our lives is directly affected by this fuel source, or are misled as to its impact and benefits. In order to speculate about coal's future, one must look at its past.

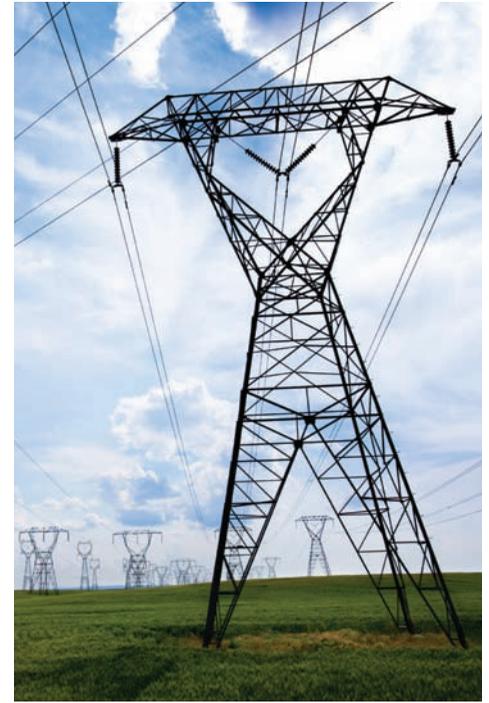
As with other industries, West Virginia recognized the need to establish controls over the coal industry to assure that mining would be conducted in a safe and responsible manner. In 1905, the West Virginia Department of Mines was established to inspect and enforce mine laws. In 1921, a coal tax was initiated and has evolved into today's coal severance tax that generates over \$400 million annually. In 1939, West Virginia passed legislation to address mining and reclamation. These regulations required permit areas to be identified, established permit fees, required bonds for all proposed disturbance and provided for inspection and enforcement staff for mining and reclamation activities.

In 1969, the federal government stepped in, with the passage of the Mine Safety and Health Act. The 1970s brought the Clean Air and Clean Water Acts that not only affected the way coal was mined, but also how it is used. In 1977, the Federal Surface Mining Control and Reclamation Act was passed, controlling the way coal was mined and providing minimum standards for reclamation and infrastructure design. Today, coal mining is one of the most heavily regulated industries in America, with over 105 state and federal agencies overseeing its activities.

The relationship between the industry and regulatory agencies is not necessarily adversarial (any more than the relationship between police officers and the community they patrol). Cooperative effort between the agencies and industry can help define those areas where improvement is needed to encourage effective and efficient mining and reclamation, protect areas outside the permit boundaries during active operations and encourage beneficial post-mining land uses for long-term economic contribution to the mining regions. While surface mining is an extractive industry, the active earth-moving areas are temporary and sequential, with reclamation a primary component of the operation.

After over a century of regulation and taxation, coal is still the most cost-effective fuel source to generate electricity. Technology in mine safety and productivity advanced over that same period, as did technology to facilitate the utilization of coal to generate electricity and make steel.

After over a century of regulation and taxation, coal is still the most cost-effective fuel source to generate electricity. Technology in mine safety and productivity advanced over that same period, as did technology to facilitate the utilization of coal to generate electricity and make steel. Since the mid-1970s, coal use has tripled in the United States, but air emissions have been reduced by more than 80 percent. Both the coal and electric generating industries



have worked to address every effluent issue presented. That same effort to capture CO₂ and other greenhouse gases will go forward in the future.

Today, surface mining is cleaner, safer and more environmentally friendly than ever before. Nevertheless, today the coal industry is under attack. There are some who do not want any coal to be mined or burned. No consideration is given to the local economic impacts from lost mining jobs or to the effects on our national economy by increasing the cost of electric generation.

Anti-coal activists have attempted to manipulate the law to stop mining. The law was established not to stop mining, but to regulate it and allow for natural resource recovery using the best available technology to “strike a careful balance between the protection of the environment and the economical mining of coal to meet energy requirements.” In the past, when presented with an environmental concern, the industry has confronted the issue and adapted practices to address concerns. Environmentalists do not seek balance. Environmentalists put the interests of people at risk. Environmentalists do not consider the interests of the millions of people who pay lower electric bills because

their electricity is generated from coal, the 600,000 people who work in good paying, long-term, direct and indirect coal jobs in our country, the people who work in the industries that make and use steel and others who benefit from the energy generated by coal.

Demand for energy will increase both domestically and internationally. Developing countries will continue to utilize coal for power generation. Both China and India have made their stance on coal-fired power generation very clear. China is building coal-fired plants on a weekly basis to bring electricity to all of China. They are building plants with the latest emission technologies. Coal to liquid (CTL) plants are being built to turn coal to transportation fuels to minimize China’s dependence on imported oil. These new CTL plants also capture the CO₂ and use it to make fertilizer to grow crops to feed their populace. The United States must continue to fund our own clean coal technology projects and establish ourselves as the world leader in clean coal technology. Coal is an abundant natural resource throughout the world and should be used to meet both the short- and long-term energy needs of the world. Since man first realized that coal was the rock that burned, coal has been used to

provide warmth from the cold, fuel to make steel, a source of heat for steam used in both early transportation and manufacturing and to generate electricity. West Virginia’s initial railroads and waterways were developed to transport coal to eastern cities and steel mills. As coal mines were developed, small towns and communities sprang up to house the miners and railroad workers. These communities are now West Virginia. Coal played a very important part in West Virginia’s past development and will continue to play a significant role in the future. ▽



Coal: The Engine that Drives the Logan County Economy

Arthur E. Kirkendoll, President
Logan County Commission

Arthur E. Kirkendoll is president of the Logan County Commission in Logan, West Virginia. He was first elected to the Commission in 1981 at the age of 29. He is currently serving his fifth consecutive term, with a total of 30 years of service.

Mr. Kirkendoll has been privileged to serve with numerous other commissioners during his tenure and is most proud of the overall economic growth of Logan County.

He currently serves on numerous boards, including the Corridor G Regional Development Authority and the Southwestern West Virginia Region 2 Workforce Investment Board. He also is chairman of the Hatfield-McCoy Regional Recreation Authority board of directors.

It has been my pleasure to serve on the Logan County Commission for 29 years. As president of the Commission, I see firsthand the importance of a strong workforce. The coal industry has been, and will continue to be, the engine that drives our economy. When our coal miners are able to perform their most honorable profession, our county benefits in many positive ways.

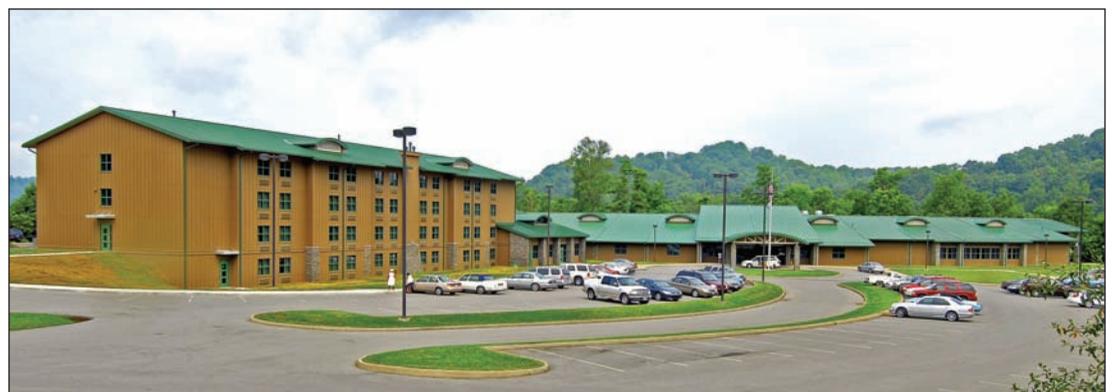
The County Commission is the primary agent for most activities that occur in Logan County. The Commissioners are elected to make certain that county government provides adequate services to the citizens it serves. In doing so, we endeavor to provide a broad range of services. These include supporting students both in academics and physical activity by providing facilities that allow them to further their skills in whatever endeavors they choose. We also continue to support services that allow our seniors to have a better quality of life in many different venues.

The needs of our citizens are what drive the decision-making that the Commission endeavors to perform. We facilitate the federal and state funding that flows through the County Commission. We own and maintain community playgrounds and support the Chief Logan Recreational Center, as well as community

and veterans' centers. We support local libraries and local crime-watch groups. We promote and provide support to both entertainment and tourism activities that benefit all ages, including The Coalfield Jamboree, Christmas in the Park, the Civil War Reenactment, The Aracoma Story and Pick'n in the Park, which attract thousands of people to our area annually.

Our most treasured addition to the Appalachian Region is our nationally recognized Hatfield-McCoy Trail System. ATV Riders from every state in America and more than 20 foreign countries have visited this system. The success of the Hatfield-McCoy Trail System is evidence that the tourism industry and our coal industry can co-exist in our mountains, and it all works very well for everyone.

Coal affects all facets of our community – from the person who provides service at your local fast-food restaurant to the business people who run our financial institutions to businesses located within our community. Coal is the lifeblood that allows all of these businesses to employ our citizens and keep us prosperous. As president of the Logan County Commission, I have always spoken about the advantages that coal production and usage allow our people and agencies to enjoy.



The Chief Logan Lodge in Logan County is built on reclaimed mining property



Photo credit: Leah Vance

As an elected official and an American citizen, I am truly frightened by our country's outlook on such a valued resource. People need to understand that America will use coal for decades, and with the direction that we seem to be taking, imported energy will be our only option. As a result, the American public will, unfortunately, see a drastic increase in the price of coal, which will ultimately cause a "hike" in utility costs, fuel costs and much more. Educating the American public to the benefits of coal is imperative.

The security and safety of the citizens of our great country must continue to be our top priority. Through new technologies, such as coal liquification, we can achieve financial independence and a second-to-none economic system.

With the mountaintop mining method being criticized by various groups, the coal industry is under the most pressured attack in its history. The Logan County Commission supports and endorses all methods of mining, as long as they are done in an environmentally correct manner.

In Logan County, post-mine lands have been used to create an airport, industrial park, conference center, hotel and shopping mall – all to benefit our residents. Because our area has very little flat land,



Photo credit: Leah Vance

none of this would have been possible without this method. The job creation and economic impact of these diverse businesses give our area a way to compete, both financially and socially. The County Commission also has worked closely with our corporate neighbors on projects that assist our youth. More than once, these companies have made significant financial contributions to the construction of athletic fields and academic projects in our area.

I feel, as an elected official from southern West Virginia, that all parties need to use common sense regarding what is truly best for all of us in America. Our corporate neighbors and governing bodies owe everyone their best efforts to make our country the best it can be. ♪

Above Left: The Coal Field Jamboree Theatre

Above Right: The Twisted Gun Golf Course is part of a reclamation project

Below: The Logan County Airport is also built on reclaimed mining property

All photos provided for this article are courtesy of the Logan County Chamber of Commerce.



Honoring America's Coal Miners

A Photographic Project

Thorney Lieberman, Photographer

Artist's Statement

Since moving to West Virginia five years ago, there have been several coal mining tragedies which have brought coal mining, and especially the people who do the mining, to my attention ... and to the attention of the world.

With America looking for ways to reduce dependence on Middle Eastern oil, the coal industry is in the national spotlight. The future of American energy may depend in no small part on those who serve on the front lines: the coal miners themselves.

Having made life-size, full length portraits for a number of years, when I moved to West Virginia, I wanted to know more about these miners; I wanted to photograph them. I am thoroughly enjoying the opportunity to meet these people and learn more about their lives and their work. I have come to regard coal miners as American heroes, engaged in dangerous work to supply us with energy, that precious geopolitical commodity recently thrust to the forefront of American consciousness.

It's been particularly revealing that so many of the miners, and most of them are men, ask me if they can be photographed with their children. It is my hope that these photographs will put a human face on coal and the "coal industry."

About the Artist

Thorney Lieberman has been a professional photographer for 40 years. His work is internationally held in museum, corporate and private collections. Lieberman's life size photographs of Native Americans in ceremonial regalia have been shown in museums in the United States and Europe and are archived in tribal museums and cultural centers throughout the country. He recently was honored as a Walter Gropius Master Artist at The Huntington Museum of Art, where a retrospective of his work was shown.

According to Mr. Lieberman, the goal of his project, "Honoring America's Coal Miners," is to put a human face on the energy issue by creating a collection of life-size photographs of American coal miners, suitable for museum exhibition.

The exhibit, consisting of 18 life-size portraits, premiered in West Virginia in June 2009 and has traveled to museums and other venues, both public and private, throughout the United States.



Portrait of James and Kailee Brandon

*Bowles Rice is proud to be among the sponsors of
"Honoring America's Coal Miners."*



What Can Brownfields Do For You?

Joshua L. Jarrell, Associate
Bowles Rice McDavid Graff & Love LLP

Joshua Jarrell is a Bowles Rice associate in the Morgantown, West Virginia, office. He is a member of the firm's energy and real estate development group and serves on the advisory board of the Northern West Virginia Brownfields Assistance Center at West Virginia University.

Mr. Jarrell earned his law degree from the West Virginia University College of Law. He previously served as the finance director for United States Congressman Henry Cuellar's re-election campaign and as a legislative correspondent in the office of United States Senator John D. Rockefeller, IV.

My fiancée and I have been trying to buy a home for the better part of a year. We keep searching the market, hoping to find that one gem-in-the-rough that has somehow eluded other buyers. After failing miserably, we began to despair. We started thinking that maybe buying a new construction or building fresh was the way to go. But is it? Surely there's something on the market at a bargain price, with a great location – something that a little bit of elbow grease could transform into the elusive gem we covet.

While thinking about this article, I recognized parallels between my own personal quest to buy a home and the challenges of marketing brownfields. Brownfields are “real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” These are underused or abandoned commercial properties that typically have an established infrastructure, are centrally located, but are burdened with the dread of uncertainty. They often are located on former mines or mining-related facilities. But when coal production or other industrial endeavors are no longer viable, what's next?

It is reassuring to know there are forces working against the economic uncertainty presented by brownfields, such as the West Virginia Brownfields Assistance Centers at West Virginia University and Marshall University. The West Virginia Legislature created these centers in 2005 to work in partnership with the West Virginia Department of Environmental Protection, the West Virginia Development Office and stakeholders in the communities and identify creative ways to facilitate the redevelopment of brownfields. Their mission is to transform dormant liabilities into thriving assets – and for the most part, they are succeeding.

Since their inception, these centers have helped usher more than \$6 million into the state's communities in the form of assessment grants, revolving loan funds, clean-up grants and job-training grants. For the five years preceding their creation, West Virginia leveraged less than a third of that figure from the federal government. In addition to federal funding, these centers have generated \$465,000 in private investment from the Claude Worthington Benedum Foundation to fund a new program called FOCUS WV. Through a structured application process, communities can receive micro grants of \$5,000 – and sometimes an additional \$12,000 – to start the process of redeveloping brownfields. Currently 26 projects receive FOCUS WV funding across the state. The Coal Heritage Highway Authority's project to restore a historic structure in Mt. Hope, West Virginia, that could serve as a coal heritage discovery center is just one example of how this funding is being used.

Like a homebuyer, lenders and investors have understandable reservations about acquiring sites that might involve fixing problems they did not create. This frame of thinking makes sense, but it also perpetuates the brownfields problem, because properties that could become new homes for business and industry continue to blight our communities. Similar questions should be asked by home-seekers and investors alike: Should this property linger as an eyesore or should its problems be addressed so that it can breath new, economic life? Brownfields redevelopment may provide the answer. If only buying a home were that easy. ❧



A Sportsman's Perspective

Jeremy Starks, Professional Angler
Friends of Coal Spokesman

Charleston native Jeremy Starks is West Virginia's first and only professional angler to compete on the ESPN Bassmaster Elite Series Tour (www.bassmaster.com). Since winning the 2008 Southern Challenge, he is considered one of the up-and-coming "young guns" on the Tour.

Jeremy grew up and went to school in eastern Kanawha County and spent most all his free time fishing the rivers, lakes and streams in West Virginia and across the region, with a heavy emphasis on the Kanawha River.

He is a graduate of the West Virginia Institute of Technology in Montgomery, where he received a degree in emergency medicine and fire science. He also spent two years interning with the West Virginia Division of Natural Resources in its fisheries department.

Many consider Jeremy to have one of the best jobs in the world, as he has been able to convert his love of fishing and the outdoors into full-time employment!

I've grown up fishing and hunting throughout West Virginia. As a professional angler on the Bassmaster Elite Series Tour, I now have the opportunity to fish across the country. I can say without question that our state has some of, if not the best, smallmouth bass fishing water in this nation, and possibly the world. The trout, catfish, muskie and large mouth fishing is pretty darn good as well.

Given the productivity of our fishable waters, it's hard for me to understand why a specific type of mayfly – or fishbait – is being used as a delay tactic by the United States Environmental Protection Agency to slow the issuance of mining permits in Appalachia.

I feel I've got a unique perspective on this. While my family has a rich mining heritage and I'm proud to have the coal industry as one of my primary sponsors, I've also helped test the water quality in more than 100 of our great streams



and rivers. The biggest threat to our waterways, and potentially our people, isn't development or the extractive industries: it's sewage. You can test pretty much any stream or river – not just in West Virginia, but anywhere – and fecal coli is present at high levels. I'm not sure why the EPA isn't working on that issue, instead.

As I understand it, the EPA has found that three species of mayflies, out of more than 600 species known to exist in North America, move and don't return to an area where the land has been disturbed. This doesn't just relate to surface



Jeremy Starks casts off the dock during the Bassmaster Elite Series Tour



Jeremy Starks is West Virginia's only professional angler on the ESPN Bassmaster Elite Series Tour

mining – although mining is the only industry segment being penalized – but any land disturbance taking place at the head of a hollow, like road construction, logging or development.

While I believe this has proved to be true, the reality is that the majority of benthic macro invertebrates – or bugs – come back once the disturbance has ceased. As we all know, when you have fish in a waterway, you normally have a fairly healthy stream. To have fish, they have to have a food source – mayflies and the host of other bug life are that food source. Frankly, we've got the fish, and our water and waterways are just fine.

The regulations coal companies must conform to under their mining permits require that the quality of the water coming off a mine site be equal to or better than what existed before mining. On a recent trip on Paint Creek in Kanawha County – which sits below active surface mine jobs – I witnessed several large groupings of mayflies. I can say the same for Kelleys Creek. I also caught a bushel of fish at both locations. I'd add that the Kanawha River, into which a large portion of coal country streams and rivers drain, looks healthier from a bug and plant-life standpoint than I've seen it in my lifetime.

Maybe we need to take the decision-makers at EPA fishing and show them firsthand the overall health of our environment and, at the same time, ask them to exercise a little common sense as it relates to mining and West Virginia.

In my view, West Virginians by nature are the true environmentalists. We use what God has given us in a responsible fashion to make our way in life. We use our mountains for recreation and tourism and we also use them to provide energy for the country and jobs for our citizens. ▽

Lane: The Future of Coal in a Politically Constrained World

(continued from p. 9)

from the waste stream of these plants and create storage fields, where the carbon dioxide will be injected underground for permanent storage or sequestration. The additional capture plants are estimated to add 50 percent to the cost of a major power plant, and securing the property rights for constructing the pipelines and wells necessary for a storage field will be enormous. Current estimates are that a 500KW plant will require a 100-square mile area for underground storage. The bottom line is this: The cost of electric power with carbon sequestration will affect the bottom line in a very significant way.

The third constraint on the future of coal involves cap-and-trade legislation. The essence of the proposals introduced (and stalled) in Congress in 2009 were to create limits, or caps, on the amount of greenhouse gases which could be emitted from any significant source and to create a system of credits for trading on commodity exchanges. In its simplest form, the common measurement under this system is one ton of carbon dioxide, which equals one credit. Any entity which avoids the emission of carbon dioxide is entitled to a corresponding number of credits and, in turn, any entity that emits more than its allowable amount of greenhouse gas would be required to purchase credits. This system will

create an entirely new marketplace from which many will profit but, ultimately, at the expense of purchasers of electric power generated by coal.

It is clear that the three constraints which are either in place or proposed could have dramatic consequences for the coal industry and, more far-reaching, will dramatically increase costs for users of electric power. In the end, these proposals will have a huge negative impact on an important American industry and will divert significant economic investment into programs intended to reduce global warming.

While some conclude that the train has left the station on global warming and important utilities like American Electric Power have strategically decided to sit at the table to formulate policies on carbon sequestration and cap-and-trade, the debate ultimately needs to come back to the heart of the issue: Is global warming a reality, and is it affected by human activity?

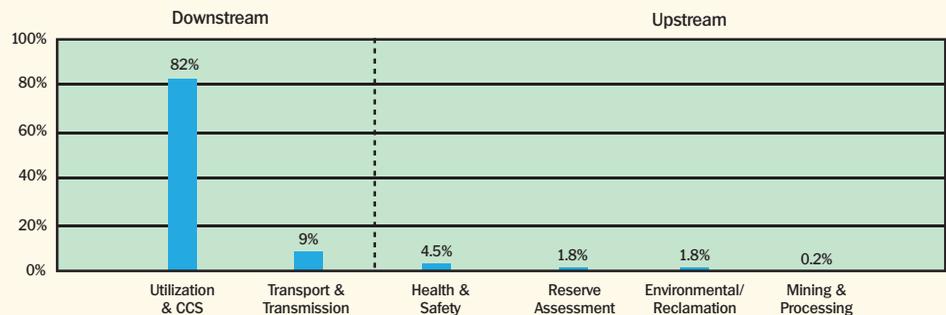
Before we go too far down the current path, our political leaders should seek satisfactory scientific proof. ▽

Remish: Innovative Fossils R & D

(continued from p. 27)

around coal have not received sufficient attention. These opportunities need to be seized and explored to diversify any coal research and development agenda.

Undoubtedly there are barriers to overcome to meet these research needs; however, the opportunity is at hand to use West Virginia's greatest natural resource to stimulate a transition from a predominantly extractive industry cluster to a more innovative one. A strong focus on the future of coal and developing greater coal-based research capacity will strengthen the



Source: Coal: Research and Development to Support National Energy Policy. The National Research Council.

state's prospects for participating in the development of other energy systems drawing on related technical, environmental and market knowledge bases – systems that need to be developed now for the use and benefit of future generations. West Virginia

has made progress in being recognized as a leader around coal resources, but the state needs to renew its aggressive commitment to fulfilling that vision. The opportunity is within our grasp. Let us all continue to support efforts to make real and urgent progress on it. ▽

Whitt: A New Beginning For Mingo County...

(continued from p. 53)

Highways is overseeing the final paving of a 10-mile section from Mary Taylor Mountain to Horsepen Mountain. Paving of the final five miles is projected to be complete in 2010. Without this partnership, it would have taken 30 years and an additional \$250 million to accomplish this project.

A tremendous added benefit of the King Coal Highway construction is the creation of a number of developable acres which can be used for future development. Desperately needed, these sites are out of the flood plain and will be utilized for the development of housing, recreational and industrial facilities. The new Mingo Central High School is being constructed on one of these sites directly adjacent to the King Coal Highway.

Air Transportation Park

Construction of the Mingo County Air Transportation Park as a post-mine land-use project is nearing the final stages. The result of a partnership between the MCRA, Alpha Natural Resources, the Mingo County Airport Authority, the Federal Aviation Administration, the West Virginia Aeronautics Commission and other state and federal regulatory agencies, the new airport will boast a 5,000 foot runway (expandable to 6,400 feet) with 300 foot safety zones, state-of-the-art lighting, wind instrumentation, a terminal building and fuel facilities.

This project represents the very best of public-private partnerships. Our private sector partner, Alpha Natural Resources, purchased 975 acres on which to develop the property, constructed the runway and taxiway to rough grade, completed site development for adjacent properties to be used for development purposes, constructed an access road to the site and, in turn, donated the 975 developed acres to Mingo County – an estimated in-kind contribution valued at hundreds of millions of dollars. Once it is completed in 2011, this air park will assure Mingo County citizens and businesses a safer and more modern air transportation facility that is configured in accordance with prevailing design standards, is conveniently located to other modes of transportation and is sufficient to accommodate the demands for aviation services for many years to come.

Coal-To-Liquids Plant

Lastly, and most significantly, Mingo County has partnered with TransGas Development Systems of New York to construct a coal-to-gasoline conversion plant on a 150-acre post-mine land-use site near Gilbert. The projected cost of the plant is \$3 billion, and the economic impact to Mingo County and the surrounding regions will be dramatic. Approximately \$1 billion will be spent

in the region for steel, concrete and supplies, and 2,000 skilled trades workers will be required to construct the plant over a three-year period. Once it is operational, the plant will create 300 full-time jobs and at least 300 additional jobs in services related directly to the facility.

The plant itself will triple the billion-dollar tax base of Mingo County. The plant's feedstock will consist of approximately 8,300 tons per day of low-quality coal. Besides a value-added opportunity for coal that has never existed in the region, the plant's ability to use non-compliance coal will open up markets for underground seams that have been historically ignored, potentially adding even more employment opportunities. The plant will produce 750,000 gallons per day of ultra-clean premium 92 octane gasoline. The plant's air quality permit has been approved by the DEP's Division of Air Quality, and the final design and financing are currently progressing, with a projected operational date of 2013.

The construction of a coal-to-liquids plant in Mingo County will drastically reshape our own economy, as well as the region's and the state's economies. But even more significant is this project's potential to jump-start the meeting of our nation's energy needs with domestic fuel sources and subsequently increasing the entire county's energy independence.

In summary, Mingo County is in the process of positive change. Partnerships have allowed us to leverage our natural resources into very creative diversification projects, and we are reshaping our rural economy to capitalize on the once-in-a-lifetime opportunities that are being created for the citizens of Mingo County and for all of southern West Virginia. ▽

“My wish is this: that every American takes time to say a prayer for every miner that works today.”

- West Virginia Governor Joe Manchin

On April 25, 2010, a memorial service was held in Beckley, West Virginia, for 29 coal miners killed in an explosion at the Upper Big Branch Mine on April 5.

President Barack Obama, Vice President Joe Biden, Governor Joe Manchin, Senators Robert C. Byrd and Jay Rockefeller and Congressional Representatives Nick Joe Rahall, Shelley Moore Capito and Alan Mollohan were among those in attendance.

At the beginning of the service, family members of each of the miners placed white helmets on a row of 29 white crosses. Later in the service, the lamps on the helmets were turned on by members of the rescue teams who had put their own lives at risk in an attempt to save those lost.

From the President's eulogy:

... Even as we mourn 29 lives lost, we also remember 29 lives lived. Up at 4:30 a.m., 5:00 in the morning at the latest, they began their day, as they worked, in darkness. In coveralls and hard-toe boots, a hardhat over their heads, they would sit quietly for their hour-long journey, five miles into a mountain, the only light the lamp on their caps, or the glow from the mantrip they rode in. Day after day, they would burrow into the coal, the fruits of their labor, what so often we take for granted: the electricity that lights up a convention center; that lights up our church or our home, our school, our office; the energy that powers our country; the energy that powers the world. ...

From Governor Manchin's remarks:

... I believe that each of those 29 miners – like every miner working today as well as many of their fathers and grandfathers that worked before them – had not only a strong commitment to provide a good living for their families, but a deep and patriotic pride that the work they did and the energy they produced made America strong and kept her free. And my wish is that every American takes the time to say a prayer for every coal miner who is still working today to keep our nation vibrant and safe, and not only thank them, but honor them for their work and patriotism.

From Senator Rockefeller's remarks:

... for years, too many people beyond these hills have underestimated what it means to be a coal miner. Too many people do not understand our miners' dedication to their families and fellow miners, their work ethic, their faith, their inner toughness, and their enormous pride. They don't know how strong our miners are, how strong you need to be to survive. They do not understand that, despite the dangers, despite the worries it brings a miner's family, despite it all – mining gets in a miner's blood. It is a way of life. And one we deeply cherish and honor in West Virginia.



President Barack Obama



Governor Joe Manchin



Senator Jay Rockefeller

CONGRATULATIONS



Sara L. Birchenough
Martinsburg - Associate
Real Estate



Anna D. Crislip
Morgantown - Associate
Energy



Emily R. Lambright
Charleston - Associate
Tax

Bowles Rice is pleased to welcome our newest associate, Anna Dissen Crislip. Anna has joined the firm's Energy Department, working in the Morgantown office. She earned her law degree from the West Virginia University College of Law and received her undergraduate degree, *cum laude*, from Xavier University, where she majored in international business and French.

Two other associates have recently achieved admission to practice law in a second state. Sara L. Birchenough, previously admitted to practice in Virginia, is now licensed in West Virginia. Sara is a member of the firm's Real Estate Team, based in the Martinsburg, West Virginia, office. She received her law degree from the West Virginia University College of Law and her undergraduate degree, in foreign affairs, from the University of Virginia.

Emily R. Lambright, a member of the firm's Tax Team and a Certified Public Accountant (CPA), recently was admitted to practice law in Kentucky. Emily, who works in the firm's Charleston office, was admitted to the West Virginia Bar in 2009. She earned her law degree from the West Virginia University College of Law and received both an MBA and a bachelor's degree from West Virginia University.

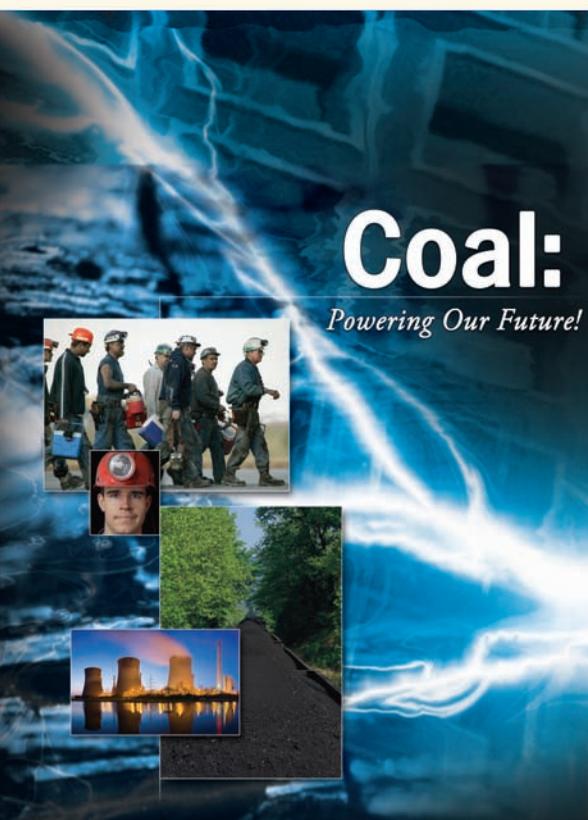
Coal: Powering Our Future!
Summer 2010

Cover photos courtesy of:
Alliance Resource Partners, LP (top photo)
Thorney Lieberman (Portrait of miner, Jason Cleavenger)

VIEWS & VISIONS

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