Energy Education: What Are We Teaching Our Children?

A Dedication to West Virginia

The Policy Pendulum Keeping Business Viable Despite Anti-Business Policy
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Bankrupting the Coal Industry
The coal industry is enduring an unprecedented assault, one that has been led by President Obama and aided by powerful ideological and business allies.

Export Opportunities Booming for American Coal Producers
Demand for US steam coal is jumping, even as new rules make generators here look to alternative energy sources.

Look out, Appalachia:
Hollywood is coming to town
In his documentary The Last Mountain, Bill Haney weaves quite a tale of intrigue in the quest to rebrand surface mining as “mountain-top removal.”

Mongolia Energy Riches Attract Neighbors and Outside Interests
Pity poor Mongolia, bereft of fiscal resources, caught between neighbors, Russia and China.

India’s Overseas Coal Hunger
There are two significant aspects to the current global mining tax policy debate: the size of increases and how much data should be made public.
Newton’s Cradle

If you look at the cover of this magazine you see a Newton’s Cradle; a gadget that does more than just look cool on a manager’s desk. This item was developed to demonstrate the scientific principle of conservation of momentum and energy.

While I’m sure that most have seen a Newton’s Cradle before, for those who haven’t, when you lift and release one of the balls in the group, it will fall back and strike the others. The force from the first ball is transmitted through the other balls, pushing the last one up and away. That ball then falls back and the process is repeated, back and forth, back and forth.

This same type of pendulum action is mirrored in the energy industry. Policy, public support, and regulation will sometimes favor the development and use of coal and, other times, will move against it.

American Coal readers will already know that the regulatory and political environment surrounding coal is at the high point of the “moving against” arc in the pendulum swing and we can’t be completely sure how long the ball will hover there.

However, we do know that coal currently provides us with abundant, affordable, and clean energy from our existing generation stock. We enjoy an immediate response when we flick a switch; we enjoy the low prices that coal-fueled electricity provides; over the past thirty-plus years we have enjoyed increasingly clean air due to the billions invested in clean coal technologies. However, changing policy and regulation is bringing that comfort level into sharp visual relief. As I have written in several Coalblog posts (www.coalblog.org), utilities and regulators around the country are being forced to pass the added costs of renewable portfolio standards and “marginal” coal plant closures on to their customers.

In the face of the impending EPA “train wreck,” utilities in West Virginia are closing coal-fueled plants, meaning tens of millions in wages, payroll and property taxes will be lost at the same time as electricity rates spike by 10 to 15 percent. Illinois utilities are forecasting that plant closures brought on by strict new environmental regulations will begin to force electricity bills up by 40 to 60 percent as early as 2014. Others states – Arizona, California, and Kentucky – along with energy experts and elected officials around the country are predicting similar rate increases.

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“full stomach phenomenon.” With our increasingly clean environment, wealth, and affordable energy, we have the freedom to focus heavily on the minutest details of environmental wellness. In contrast, those living in developing or declining societies are concerned with basic necessities like providing food and electricity for their citizens.

Unfortunately, with the rushed imposition of expensive new regulations we are chipping away at the foundation of our well-being. We are witnessing the inevitable contraction of energy supply and the rising costs associated with decades of misinformation and political action from anti-coal groups. As we abandon the engine that powered our economic growth, we turn our backs on the ability to enjoy our “full stomachs.”

Things have been difficult for coal over the past few years, but we’re not alone. To steal a phrase from our President, we’re just part of the “shared sacrifice” plan. Things have been tough for much of the energy industry. The same environmental groups and regulators attacked nuclear energy for decades; they have vilified “big oil” for just as long, and now that they see the coal industry planning to shutter plants and cut back on mining plans, they are turning their attention to shale gas producers.

To tweak another Presidential phrase: “it’s the energy stupid.” The green groups are not just targeting coal; they’re targeting energy of all kinds, shapes, and sizes.

To allay your fears, readers should know that I am actually a ‘glass half full’ kind of person. I don’t like to focus solely on the negatives, so I’ll wrap up this message on an upbeat note.

Energy-wise, we are clearly on the negative arc of Newton’s energy cradle. However, I see a definite sea-change approaching as electricity users, elected officials, voters, and the media start to recognize the costs of implementing EPA’s policy and regulatory “upgrades.” I’ll cite just two examples as evidence.

First, a massive public rejection of the country’s policy direction occurred in the 2010 election. Generally energy-and development-friendly representatives were elected at all levels of government – local, state, and federal. These election results have had two clear impacts on the legislative agenda around the country, with both good and bad implications for the energy industry:

1. Numerous funding measures and amendments to current bills have sought to cut funding for the EPA and/or restrict the broad powers given to EPA by the current Administration and 111th Congress. For example, in mid-July the House Appropriations Committee passed the 2012 Interior and Environment Appropriations bill, calling for an 18 percent funding cut for the EPA and a 7 percent cut for the Department of the Interior.

2. At the same time, funding for many fossil energy-related research projects have also gone onto the chopping block in the heightened tensions around budgeting and national debt management.

Second, science is now openly questioning the ability of models to accurately forecast climate change. A just-released study co-authored by University of Alabama climatologist Dr. Roy Spencer, and published in the peer-reviewed journal Remote Sensing, has contradicted several of the most basic assumptions underlying UN climate models.

Where those models rely largely on educated assumptions about how CO₂ will impact climate, Dr. Spencer’s study used physical data collected by NASA’s Terra satellite to demonstrate that “much more energy (is) lost to space during and after warming than the climate models show.” Spencer’s research also indicated that the Earth’s atmosphere begins to shed heat into space far sooner than UN models have ever predicted. If accurate, much of the predicted impacts of climate change and much of the policy developed as a result of those predictions would be undermined.

And the public is listening. Rasmussen polling from July this year indicates a sustained belief among U.S. voters that discovering new sources of energy is more important for the country than reducing energy consumption.

So the push-pull of policy continues to play out across the nation, and if these two election and climate science examples serve as any indication, the pendulum may have reached its uppermost anti-coal limit. As more people realize the costs associated with closing coal generation and begin to understand the science on climate may not be so solidly “settled,” watch for the pendulum to pick up speed in a more coal-friendly direction. ♦
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OHIO LEGISLATOR PUSHES TO REPEAL STATE RPS
There is an interesting article on istockanalyst.com that describes the efforts of state senator, Kris Jordan to repeal Ohio’s Alternative Energy Portfolio Standard (AEPS). Jordan is unabashed in explaining his reasoning for this move. He is pushing the repeal to help the embattled Ohio economy recover and mandating renewable energy costs ratepayers far more.

“With one of the worst recessions in recent memory still fresh in our minds, the last thing we need to do in Ohio is drive up the cost of energy for both Ohio families and Ohio businesses, and that’s exactly what the Alternative Energy Portfolio Standard does.”
– coalblog.org

REP. NICK RAHALL (D-WV) COMMENTS ON STREAM BUFFER ZONE RULE CHANGES

“Without a doubt, the new stream buffer zone rule under consideration by the Office of Surface Mining Reclamation and Enforcement is unworkable; it would, unquestionably, adversely affect coal mining and eliminate mining jobs so important to our West Virginia economy. The message I send to the agency is this: ‘Go back to the drawing board.’”
– coalblog.org

SIERRA CLUB ANTI-COAL CAMPAIGN HAS COST >1 MILLION JOBS

A recently released study has revealed that, if Sierra Club claims are accurate, then their anti-coal campaign has cost as many as 1.24 million jobs across the country.

“The Sierra Club’s effort to transition away from coal-fired power in the US has potentially cost 1.24 million jobs in 36 states, according to an analysis released Wednesday by the National Mining Association.”
– coalblog.org

SOMETHING TO READ

The Impending World Energy Mess by Hirsch, Bezdek, & Wendling

Power Grab by Richard Horner
Keeping with the Times

The world is moving at near breakneck speed and the ACC is working to keep pace with these rapid changes. Our industry is facing demographic, policy, and technological changes that will fundamentally alter the way we do business over the next few decades.

A few years back, in the Spring 2007 issue of American Coal, we looked at the future of our industry. Several of the articles in that issue addressed plans to deal with demographic shifts in the coal industry. No sector was exempt – mining, utilities, railroads, barging, ports and terminals, allied services and suppliers reported that as much as half of the people in our industry are set to retire in the next decade.

The “Great Recession” of the past few years has sufficiently impacted 401-K’s and investments that many industry employees may choose to stick it out for a few more years. However, we’re still dealing with the same reality: in the next decade, we’re facing a fundamental demographic shift throughout this industry.

At the same time, the increasingly strict regulatory environment is an ongoing threat. Regulatory policy is increasingly anti-coal and is impacting the viability of many of our older and smaller generation assets. We’re updating, upgrading, or mothballing existing units at a pace that would have been unimaginable just a few years ago. On the mining side, delays and rejections of much needed permits are impacting the viability of existing mines and making greenfield mines seem like a thing of the past.

We’re also addressing technology and communications developments that will change the way we connect with our members, clients, customers, elected officials, and the public. We live in a world where a two-day media campaign by anti-coal groups can force a respected publishing house to wholly abandon a multi-year partnership that produced balanced energy education materials for this nation’s school children.

The speed with which information (whether accurate or inaccurate) can be moved out to a data-hungry population is breathtaking. So our industry must be ready to publish fact-based replies and updates. We need to ensure everyone has access to both sides of coal-related stories. Plus, we need to be able to move that information out to the public via the latest information outlets, including social media like Facebook, Google+, Twitter, YouTube, and LinkedIn.

In the face of these challenges, the ACC has developed a program with the potential to address each of these needs – demographic, policy, and communications. In 2009, we launched the Tomorrow’s Leadership
Council (TLC) program, designed to advance and vest executive talent in the coal industry. The TLC provides a meaningful opportunity for up-and-coming executives to enhance their industry knowledge and networks through projects and activities that advance industry-wide objectives as well as professional development goals.

This year, the TLC group was tasked with producing a social media primer that provides instruction on how the industry can take part in the world of social media, while ensuring it is used as an effective business tool as opposed to a distraction.

When compared with the tech savvy nature of many who oppose the use of coal, our industry is not well known as an effective user of social media. However, nearly all the available research indicates that social media has become a primary communications tool for our society.

Google data indicates that over 60 percent of those using social media fall between the ages of 25 and 54, and the average social network user is 37 years old. Other research indicates that over 110 million tweets are sent out each day and over 500 million active users spend more than 700 billion minutes per month Facebooking.

With so many of our customers using social media, it is important for our industry to take part in this technology revolution. With very effective anti-coal marketing finding its way into so many social media outlets, it is essential that we take part.

Through the TLC project, we are helping to ensure our industry welcomes our new hires and encourages our up and coming executive talent. By encouraging connections and networking, we are developing mentoring relationships that will meld new ideas and concepts with the centuries of experience possessed by our senior executives. Combining those resources with our 2011 social media project recognizes the need to provide our industry with tools and information that make the most of new communications technologies. With this program we can help to turn the tide of misunderstanding and misinformation on coal.
We don’t want to oversell anything here. We recognize that producing a social media primer will not suddenly solve all of our communications challenges. Forming a committee is not a silver bullet that will bring in the thousands of new hires this industry will need over the next several years. The TLC group will not be the solution to all of our challenges.

The TLC group does, however, provide an increasing number of executives with essential ties to others in the industry. This group provides a basis for sharing of new ideas across industry sectors, and in doing so, helps encourage new methods of addressing regulatory challenges. The 2011 project, in particular, addresses the need for education on social media. It also addresses the need for publishing balanced and factual information about coal when traditional media and information resources may not suitable or adequate for the task.

We believe that the TLC group meets several essential needs for this industry and, in providing this resource, we believe we have taken another necessary step in our attempts to serve you, our members.

We encourage all ACC members to take part in the Tomorrow’s Leadership Council. For more information on this committee, please contact ACC Communications Director, Jason Hayes, or go to the Committees page on the ACC website (www.americancoalcouncil.org).
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The Gravity of Our Economic Situation

The reference to Newton’s Cradle in this issue of American Coal is quite apt in light in recent world events and implications for the energy industry.

I’m doing my best to make sense of a world that seems to have turned upside down while I was away on holiday – one of those unplugged, off-line holidays. I returned to the news that Congress had sorted out (sort of) deficit and FY2012 budget issues, Standard & Poor’s had downgraded the U.S. government debt rating, riots were underway in Israel and Great Britain, and the stock market was somersaulting more than Six Flags’ totally twisted roller coaster.

I felt a bit like Rip Van Winkle and I definitely felt like turning around and heading back to my no-news-penetrates-these-walls log cabin. Unfortunately, no such luck. Descending back into the “real” world in the midst of these unprecedented events left some rather vivid impressions.

Newton’s First Law of Motion:  
An object at rest tends to stay at rest; an object in uniform motion tends to stay in uniform motion (Law of Inertia).

We’ve been grappling with an economic downturn since late 2008 and with a burgeoning deficit for decades. Little decisive or effectual activity has been undertaken; efforts to address these issues have been infamously stalled by raucous bipartisan infighting. What’s certain going forward is that the activities of the Super Committee (Joint Select Committee on Deficit Reduction) will be the primary focus of Congress this fall, with little else likely to be addressed or accomplished.

The Budget Control Act of 2011 increased the federal debt limit by $900 billion while also requiring $917 billion cuts in discretionary spending over the next decade. The Act also requires an additional $1.5 trillion reduction in the federal deficit over the period 2012-2021. The Super Committee of 12, comprised of Democrats and Republicans from both the House and the Senate, is tasked with crafting legislation to achieve the $1.5 trillion reduction that’s to be voted on by both Congressional branches by December 23rd, 2011. All objects will be in motion this fall.

For the energy industry, the Budget Control Act will mean that...
Those of us in the coal industry are no strangers to pendulum swinging business fluctuations. Coal supply and demand markets, both here in the U.S. and internationally, have been variable for many decades now.

Federally funded programs, loan guarantees and tax/entitlement programs are at risk to be modified, decreased or defunded. This includes U.S. Department of Energy Fossil Energy projects that have demonstrated significant return on investment benefits for taxpayer dollars invested. Among the successes of these programs:

- Commercialization of advanced emissions controls for NOx, SO2 and FGD systems.
- Placement of first generation advanced coal-based power systems including fluidized bed combustion (FBC) and integrated gasification combined cycle (IGCC) technology.
- Demonstrating the readiness of activated carbon injection (ACI) for mercury emissions control.

**Newton’s Second Law of Motion:**
*A force is only needed to change an object’s state of motion, not to maintain motion.*

Whether you agree or disagree with S&P’s decision to downgrade the U.S. government credit rating, the message it delivered is clearly a game changer. Credit ratings are useful tools for investors. Energy industry investors are already skittish about coal-related investments as a result of the uncertainty associated with environmental regulations, the economic downturn that’s driven electric power demand destruction and the current abundance of cheap natural gas. The S&P rating is likely to reinforce these concerns and serve to maintain the non-investment status quo.

As for the Budget Control Act, it seems likely that Congressional representatives favoring initiatives to delay or defund EPA’s rulemakings/authority (TRAIN Act proponents) will attempt to use the cost-cutting opportunity to advance their objectives. Those efforts may, however, be derailed or superseded by others designed to extend compliance deadlines as opposed to just delaying their issuance. Some analysts contend that compliance deadline extensions may help free up capex investments. That would certainly be a force for change for the good.

**Newton’s Third Law of Motion:**
*For every action there is an equal and opposite reaction.*

Those of us in the coal industry are no strangers to pendulum swinging business fluctuations.Coal supply and demand markets, both here in the U.S. and internationally, have been variable for many decades now. The pendulum swings do, however, seem a bit more rapid and pronounced these days.
The stock market’s recoil response to the S&P action went from panic to manic in no time flat. The only thing quicker was the Administration’s immediate criticism of the rating agency. S&P’s decision was also reactive; a “that’s not good enough” response to the Federal government’s debt solution.

In the coming months, public policy makers will confront difficult decisions regarding which federal programs to continue funding and which to cut. The coal industry will need to demonstrate more ardently than ever the value proposition it offers.

A case in point – it’s in our best interest as a nation to invest in domestic resources and clean energy technologies that yield the biggest return on investment for our tax dollars. The Energy Information Administration (EIA) recently released a report detailing financial incentives in the energy sector. The report indicated that in FY 2010, renewable energy, which accounts for less than four percent of total U.S. power generation, received 45 percent of federal incentives. Coal, by comparison, received 10 percent of the incentives although it generates 46 percent of U.S. electricity.

These facts must be given their due consideration as we work toward getting our financial house in order.

And finally …

Newton’s Law of Universal Gravitation: Every object in the Universe attracts every other object in the Universe. There is an invisible force compelling masses to move toward each other.

Perhaps the gravity of our economic situation, highlighted by the S&P messenger, will at last compel the coming together of the wildly disparate masses in Congress and the Administration. May the gravitas force be with us.

Cheers!

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The ACC facilitates the lawful exchange of ideas and information regarding the American coal industry. It serves as an essential resource for companies that mine, sell, trade, transport or consume American coal. The ACC also serves as a resource for those wishing to expand or enhance business relationships in North American and international coal markets.

We also hold regular Coal Q&A and Utility Coal Compliance webcast events. Please refer to www.accevents.org or call 202-756-4540 for additional dates, and registration information on our events schedule.
Vision Statement
The American Coal Council (ACC) strives to serve as the pre-eminent business voice of the American coal industry.

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The American Coal Council (ACC) is dedicated to advancing the development and utilization of coal as an economic, abundant/secure and environmentally sound energy fuel source. The Association promotes the lawful exchange of ideas and information regarding the coal industry. It serves as an essential resource for companies that mine, sell, trade, transport or consume coal. The ACC provides educational programs, advocacy support, peer-to-peer networking forums and market intelligence that allow members to advance their marketing and management capabilities.

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he ACC’s Tomorrow’s Leadership Council (TLC) is designed to advance and vest executive talent in the coal industry. The Council provides a meaningful opportunity for up-and-coming executives to enhance their industry knowledge and networks through projects and activities that advance industry-wide objectives as well as professional development goals.

The program, which launched in 2009, has “graduated” nearly 30 executives. Registrants for the “class of 2011” hail from the following companies:

- ADA Environmental Solutions
- AEP Cook Coal Terminal
- AEP River Operations
- Alpha Coal Sales
- Alpha Natural Resources
- Arch Coal
- Arizona Public Service
- B&W Resources
- The C Reiss Coal Company
- Martin Engineering
- Peabody Energy
- Patriot Coal
- SGS North America
- Taggart Global
- Union Pacific Railroad
- We Energies
- Westar Energy
- White Energy Coal

Each TLC group produces an annual project, focused on an aspect of the coal industry. The 2011 project looked at How to use Social Media as an effective business tool. This web-based program, designed as a primer for the coal industry, gives an introduction to the world of social media. The project describes social media offerings, such as LinkedIn, Facebook, and Twitter, how they can be (and are) used by the coal industry as a tool to learn more about customers and how to reach out to customers, as well as elected officials and the public. Educational uses, productivity tools, brand awareness and marketing, risk management, as well as uses by other groups are also researched. The TLC Social Media project is available on the Members Only section of the ACC website.

The 2010 Project was titled “Coal Unplugged.” It was based in the notion that coal is used to produce much more than electricity. The project provides documentation on how we use carbon-based products on a daily basis, in ways additional to power generation. TLC members researched how coal-based
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products are used in transportation, consumer electronics, medical products, food products and energy. The Coal Unplugged project is available on the Members Only section of the ACC website.

The 2009 Project looked at “Coal Fundamentals: An Overview of Coal Supply, Consumption & Transportation.” This web-based program was designed as a comprehensive introduction to the coal industry, suitable for educating new hires, public policy makers, students, the media and others with an interest in how coal is produced, consumed and transported. The Coal Fundamentals resource for new hires is available on the Members Only section of the ACC website.

How is the TLC structured?
The TLC is organized as an open enrollment program – participants may join at any time but are encouraged to enroll at the beginning of each year. A one-year commitment is recommended to best benefit from the program offerings and opportunities.

What is unique about the TLC?
The TLC is specific to the coal industry – the community of participants and their activities focus exclusively on coal. The program is intended to complement other corporate leadership development programs that are designed to advance more general business skills.

Who should participate in the TLC?
Entry level staff and mid-level executives from the coal supply, consumption and transportation industries, as well as those working in companies that support these business sectors. There are no age-specific limitations – our participants have ranged in age from 20-something to 40-something.

This program is for American Coal Council members in good standing only.

For more information on the Tomorrows’ Leadership Council, please visit the ACC website, “Committees” page (www.ations Director at 202-756-4540, or by email at jhayes@americancoalcouncil.org.

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Energy Education:
What Are We Teaching Our Children?

By Jason Hayes, American Coal Council

There is a disturbing lack of accurate and balanced energy information provided for kids in our schools today, and if the actions of one of the nation’s venerable education-focused publishing houses were any indication, school children across the country would be ill served in this area.

In May 2011, educational publisher Scholastic removed “the United States of Energy” from its list of publications. As a non-profit coal industry association had sponsored the printing of this publication, Scholastic representatives claimed to have pulled it to remove any taint of organizational or funding bias. However, in the eyes of the anti-coal special interests that mounted the pressure to stop production of the book, Scholastic’s actions were due solely to their two-day campaign. Comment throughout media and environmental industry outlets indicated similar views; an intense public relations campaign, spearheaded by an ideologically driven teacher, and then picked up by powerful environmental and anti-industry special interests as well as a host of media organizations forced Scholastic’s PR department into damage control mode.
Unfortunately for the kids who had been using the book, these groups ignored information in the text on renewable energy (wind, solar, and hydroelectric), nuclear, and natural gas and chose to focus solely on the fact that “the United States of Energy” informed children that coal was an important energy resource. They demanded that the publication vilify coal as toxic and a dangerous pollutant. In what was widely viewed as a desperate PR move to quell growing special interest pressure, Scholastic backed away from their history of producing balanced energy education materials and pulled the publication. This move left school children to be plied with a growing diet of anti-industry and anti-energy rhetoric.

While Scholastic’s actions are disheartening, it is important to remember that they are only one of the outlets producing energy education materials. Capable organizations like CEDAR, NEED, and the American Coal Foundation are still publishing much needed educational materials and filling the gap left by Scholastic.

All the information that’s fit to print?

It is important to note that while Scholastic retreats from presenting balanced, fact-, science-, and economics-based information to children, they are not at all shy about their decision to continue publishing materials from climate change gurus and environmental activists.

Scholastic still proudly partners with a self-described “global warming activist” to publish The Down-to-Earth Guide to Global Warming (www.scholastic.com/downtoearth/). This book is co-authored by Laurie David, as noted above self-described “global warming activist.” David was also the producer of Al Gore’s An Inconvenient Truth, and acts as a trustee of the Natural Resources Defense Council. Scholastic’s website lists David’s work as an “essential guide” for school children and the website, along with the book provides detailed instructions on how children can become politically active in the environmental movement. The book and website push children to sign pledges to “go green,” they provide pre-written letters to elected officials that lobby for specific pieces of legislation, as well as advocating Kyoto-style cuts to greenhouse gases and energy production.

When asked in a Publisher’s weekly interview, David openly stated her aim in writing the guide was to train children up as political and social “agents of change” and then motivate those children to “influence” their parents as well. David noted that if environmental and social activists wanted to “reach the parents,” they needed to first “go for the kids.”

While sponsoring a book that provides balanced information on energy use across the nation was seen as a potential conflict for in Scholastic’s offices, brainwashing children as “agents of change” apparently does nothing to transgress their highly tuned sense of morality.

So, in a marked departure from their scramble to remove the “United States of Energy” from their publishing list after only two days of special interest criticism, Scholastic representatives remain solidly behind David’s Guide to Global Warming and its clearly stated socio-political and environmental objectives.

Who will stand in the gap?

Recognizing the dearth of accurate and balanced material being offered to schools, as well as the long-term need for accurate educational resources, other organizations are working to fill the gap.

CEDAR

Coal Education Development and Resource was formed as a partnership between the coal industry, the business community and academia in 1993. CEDAR’s reason for existing is to help citizens “form a knowledgeable and unbiased opinion about the coal industry.” They achieve this goal through helping to educate K-12 school children about the benefits of using coal, providing financial resources, as well as coal educational materials for use in school curricula.

CEDAR’s documentation describes how they use grant money and programs to encourage the development of new and innovative methods of teaching/learning about coal. They also encourage teachers to promote participation in CEDAR activities throughout their schools. Teachers that develop the best coal study units are presented “Teacher-of-the-Year” awards and a cash prize.

1 An Inconvenient Truth was the so-called documentary on global warming that was ruled by British courts as containing nine significant scientific errors, as well as “distinctly alarmist” claims. After reviewing the film, British Courts required that UK-based teachers provide fact- and science-based corrections for their students if they decided to show the film in classrooms. Once again, the producer of that factually-challenged documentary is the author of the book described by Scholastic as an “essential guide” for school children.
The public and educators can learn more about CEDAR and its programs online at www.cedarinc.org, or by calling 606-477-3456.

NEED

The National Energy Education Development Project (NEED) came about as a result of a Joint Congressional Resolution recognizing “National Energy Education Day.” During the same year, a presidential proclamation by then President Jimmy Carter emphasized the importance of comprehensive energy education in schools. NEED began as a single “one-day celebration of energy education” and has grown into an organization with the goal of “reaching every … classroom in the United States.”

NEED Project Documentation describes educational materials that are designed to meet the needs of both teachers and students. NEED materials are designed in conjunction with a teacher advisory board to ensure “(correlation) to … National Science Standards and all state standards.” NEED produces activities and curriculum at all grade levels, as well as for technical schools, colleges, and for universities.

NEED’s primary published material outlet is their Energy Infobooks, which offer in depth information on each of “the nation’s energy resources, new technologies, and the use and conservation of energy.” Reviewing the Infobook sections on coal reveal them to be balanced, age appropriate, and fair. The content authors recognize coal’s provision of approximately half of the country’s energy, an admission of the environmental issues associated with the use of coal, and an honest recognition of the efforts that both industry and government are making to address those issues.

You can learn more about NEED, their educational programs, and their Energy Infobooks at www.need.org, or by calling 1-800-875-5029.

American Coal Foundation

The American Coal Foundation (ACF) was formed in 1981 in response to a growing need for an organization to “develop, produce and disseminate, via the web, coal-related educational materials and programs designed for teachers and students.” Support for the ACF comes primarily from coal producers and manufacturers of mining equipment; organized labor, utilities, and railroads have also provided support.

ACF staff work with education professionals to produce coal-related educational materials and lesson plans. These standards-based materials and plans are distributed online and during workshops to teachers and are ready to be implemented in a classroom setting. ACF also helps to coordinate class presentations, mine and plant tours, and other hands-on activities for use in the classroom.

You can learn more about ACF, their programs, and their educational programs at www.teachcoal.org, or by calling 202-463-9785.

There are many other organizations that are also publishing balanced and effective energy-focused educational materials a few more names to add to the list include:

• The Colorado Mining Association (www.coloradomining.org)
• The Illinois Department of Commerce (www.illinoisbiz.biz/dceo/)
• The Kentucky Foundation (www.coaleducation.org)
• The National Energy Foundation (www.nef1.org)

While some are bowing to special interest censorship, parents and educators can take heart, knowing that several organizations have stayed focused on the need for science- and fact-based educational materials and information for our nation’s school children.

We would like to encourage American Coal readers to get involved with their local schools, requesting information like that described above be included in curricula as a necessary balance. With trusted publishing companies now openly pressing children to become environmental and political activists and supplying training manuals authored by the producer of An Inconvenient Truth, the need for balance in public schools is painfully obvious. Unlike others involved in this discussion, however, we will not advocate for the censoring of other points of view, or the removal of Ms. David’s book. We are confident that when educators and school children are given the opportunity to see all (or at least many diverging) views on essential issues – like this nation’s energy supply – they will be better equipped to make important policy decisions when they graduate and move into positions of authority themselves.

Jason Hayes is communications director for the American Coal Council.
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A Dedication to West Virginia

By Kim Link, Arch Coal

The U.S. Department of Interior’s Office of Surface Mining (OSM) for reforestation efforts recently recognized Arch Coal’s Coal-Mac, Inc. for its reclamation work on the Phoenix #2 surface mine located in Logan County, West Virginia, near Omar. The presentation of the 2010 Excellence in Reforestation Award in West Virginia culminates nearly a decade-long reclamation effort by the company.

The presentation of the 2010 Excellence in Reforestation Award in West Virginia was made by Rick Buckley, Branch Chief, Field Support OSM Charleston Field Office with the OSM’s Charleston Field Office. “These reforestation efforts are being recognized under the Appalachian Region Reforestation Initiative (ARRI) that was started by OSM and its partners in
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2004,” said Buckley. “Since that time the coal mining industry has planted over 70 million trees on more than 100,000 acres in the Appalachian Region. Otherwise, these areas may have been reclaimed as grasslands. The re-establishment of these forests ensures the availability of nesting sites for countless birds; provides food and shelter for our native wildlife; and will provide wood products to meet our future needs.”

Finalists for the ARRI re-forestation award were chosen from nominees in the Appalachian Region that best exemplify use of the Forestry Reclamation Approach (FRA) on a reclaimed mine site. FRA, as advocated by ARRI, recommends using the following steps to achieve success:

“The re-establishment of these forests ensures the availability of nesting sites for countless birds; provides food and shelter for our native wildlife; and will provide wood products to meet our future needs.”

– Rick Buckley, OSM Branch Chief
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**5 Steps of the FRA:**

1. Create a suitable rooting medium for good tree growth that is no less than 4 feet deep and comprised of topsoil, weathered sandstone, and/or the best available material.

2. Loosely grade the topsoil or topsoil substitutes established in step one to create a non-compacted growth medium.

3. Use ground covers that are compatible with growing trees.

4. Plant two types of trees –
   - i) early succession species for wildlife and soil stability, and
   - ii) commercially valuable crop trees.

5. Use proper tree planting techniques.

An onsite inspection of the reforestation effort was conducted by the Awards Committee, a panel of judges charged with selecting the annual Excellence in Reforestation Regional Award recipient.

The Phoenix 2 operation consists of 560 acres that had been using surface mining techniques. Original permits had been issued in January 2001 and mining began shortly thereafter. The mining permit was the first to be issued in West Virginia under the approximate original contour (AOC)-plus backfill guidelines. Using these guidelines, the final backfill elevations of portions of the site were higher than original ground elevations, reflecting the natural terrain of West Virginia and enhancing the post-mining land use.

During reclamation of the top level of the backfill, care was taken to avoid soil compaction as the material was placed and spread. Reduced soil compaction facilitates root development and results in improved tree survival and growth. Coal-Mac planted the reclaimed area with a
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variety of native hardwood and softwood tree species, including red oak, white ash, green ash, white oak, sugar maple, gray dogwood, sycamore, redbud, black cherry and crabapple. Given current growth and survival rates, reclaimed areas are expected to complement the surrounding forested areas within a few short years.

Photo 1 provides a view of the valley fill showing the completion of all lifts of the fill. In this picture, grading on the upper portion of the final lift had just been completed, which proved to be an extremely effective construction technique. Once the last truckload of spoil material is placed in the valley fill, only the top portion needed final grading, seeding and ditch line construction. The rock side drains were constructed around the perimeter of the fill to facilitate drainage and prevent erosion. To minimize environmental impacts, valley fill was put in place by hauling the material to the toe and depositing the fill from the bottom to the top.

Photo 2 shows the benches and rock drains disappearing in the new growth.

Photo 3 shows the different levels of back fill above the valley fill for the final configurations used to shape the backfill to meet AOC plus methods.

Photo 4 offers a good overall view of the reclaimed portions of the mine site and illustrates the effectiveness of the reclamation techniques employed by Coal-Mac. This rolling land created provides plateaus, which will be an excellent environment for wildlife.

Sediment channels shown in Photo 5 provide a water source for wildlife while also minimizing potential erosion of the out slopes. The backfill configuration in this photo
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The backfill configuration in this photo shows how the native hardwoods to the right of the sediment ditch have already begun to re-establish within the mine area. The flora in these areas will blend together over time, further enhancing the reclamation efforts.

Photo 6 is a close-up of the sediment ditches that will remain as permanent structures. They are constructed as part of the mining and reclamation; they enhance the beauty and contours of the land while also reducing rapid runoff. As the speed of runoff is slowed, water tends to infiltrate back into the soil, recharging ground water systems and providing water sources for wildlife.
Photo 7 shows land that has been restored to a natural and productive state.

“We’re proud to constantly push the envelope in mine reclamation. By trying new approaches, we’re constantly improving the reclamation process. It’s such a good feeling to win an award for the dedication we have for West Virginia’s land,” said Terry Potter, Coal-Mac Engineer Manager.

Coal-Mac, Inc. is a subsidiary of Arch Coal, Inc. Coal-Mac is located near Holden, WV, and employs approximately 300 people. In the past five years, the employees of Coal-Mac have received 11 national and state awards for environmental stewardship, including the U.S. Department of Interior’s National Good Neighbor Award.

Kim Link is manager, corporate communications at Arch Coal, Inc. (www.archcoal.com).
Bankrupting the Coal Industry

By Tom Borelli, National Center for Public Policy Research

The coal industry is enduring an unprecedented assault, one that has been led by President Obama and aided by powerful ideological and business allies. The accumulating political and regulatory pounding is threatening to push the coal industry over the tipping point, jeopardizing thousands of jobs, and denying consumers a cheap, domestic and reliable source of electricity.

Obama’s attack on the coal industry is, however, not a surprise. In fact, the president’s revulsion for coal has been consistent, unrelenting and crystal clear. Before he was elected president, then-candidate Obama openly expressed his feelings about coal in a 2008 interview with the San Francisco Examiner. In that interview, Obama said, “So if somebody wants to build a coal-powered plant, they can; it’s just that it will bankrupt them because they’re going to be charged a huge sum for all that greenhouse gas that’s being emitted....”

At that time cap-and-trade legislation was Obama’s favored policy and during the same interview he said, “Under my plan of a cap and trade system, electricity rates would necessarily skyrocket.”

Looking back, it’s important to note Obama was completely comfortable with advancing policies that – even by his own analysis – would force energy prices higher and potentially bankrupt companies. Unfortunately, years later with unemployment rates over nine percent, and as we struggle to recover...
from the worst economic crisis since the Great Depression, Obama remains fully committed to his anti-coal agenda and its deleterious consequences.

Following the 2008 election, cap-and-trade was on the legislative fast track. With a significant political advantage because of commanding majorities in both chambers of Congress, cap-and-trade almost became law.

In May of 2009, the Waxman-Markey bill passed in the House of Representatives by a narrow margin. However, cap-and-trade eventually died in the Senate when Senator Lindsey Graham (R-SC) stopped flirting with Democrats and broke off negotiations over legislation to limit carbon emissions. In February 2010 it was reported he said in a meeting “cap-and-trade is dead.”

Obama’s cap-and-trade plan came dangerously close to becoming law because a number of large corporations joined with environmental advocacy groups to lobby for the law. Companies such as General Electric, Dow Chemical, Duke Energy, and Exelon among others joined with advocacy organizations including the Natural Resources Defense Council (NRDC) and the Environmental Defense Fund to push for cap-and-trade as part of a lobbying coalition – the United States Climate Action Partnership (USCAP).

General Electric had a clear profit motive for wanting cap-and-trade. The company wanted to price carbon – that is make fossil fuels more expensive by law – in order to make its renewable energy products such as wind turbines and solar panels more cost competitive with fossil fuel energy sources for electricity. Their actions effectively encouraged the use of government force to legislate a tax on coal, allowing some to cash in on Obama’s anti-fossil fuel agenda.

A 2007 Supreme Court decision compounded the situation by opening the door for the Environmental Protection Agency (EPA) to regulate the emission of greenhouse gases under the Clean Air Act. Recognizing the threat of impending EPA regulations some companies jumped on the cap-and-trade legislative bandwagon. They hoped legislative action to control carbon emissions would preempt the need for EPA’s action.

ConocoPhillips, for example, preferred to take their chances by trying to influence legislation that would minimize regulatory impacts on their business through USCAP, rather than having little influence on the EPA’s plan to regulate greenhouse gases.

ConocoPhillips’ gamble failed because the Waxman-Markey cap-and-trade bill was found to be unfavorable to its business – the company abandoned support for the legislation and ended its membership with USCAP.

In our Republic, an inability to pass carbon control legislation should have been the end of government efforts to force fossil fuel prices higher. If only that were true.

What the President could not achieve through legislation, he is now advancing through the executive branch.
Once again, the president was not at all shy about his intentions.

After the demise of cap-and-trade, Obama reiterated his anti-fossil fuel agenda in the October 2010 edition of Rolling Stone magazine when he said, “One of my top priorities next year is to have an energy policy that begins to address all facets of our overreliance on fossil fuels.” He continued, “We may end up having to do it in chunks, as opposed to some sort of comprehensive omnibus legislation … But we’re going to stay on this because it is good for our economy, it’s good for our national security, and, ultimately, it’s good for our environment.”

Tragically for the coal industry, Obama’s term “chunks” is a gross understatement of the avalanche of rules thundering down from the EPA’s regulatory bureaucracy. In addition to regulation of carbon emissions, the EPA is issuing an epidemic of rules that will negatively impact the coal industry.

Two new EPA regulations – the Cross-State Air Transport Rule and the Boiler MACT rule – are worth considering. The former regulation sets limits for power plants in 27 states where their emissions could travel through the air to other parts of the country. The latter rule sets air standards for emissions from industrial boilers.

The costs to comply with these regulations are staggering. An analysis by the National Economic Research Associates (NERA) estimates that these two regulations alone will cost the utility sector almost $18 billion each year resulting in higher electricity prices and significant job losses.

According to the NERA study, significant employment losses of more than 1.4 million job-years can be expected by the end of the next decade, and electricity rate hikes are expected to exceed 23 percent in some parts of the country.

In anticipation of these huge costs, utilities are already taking action to reduce their coal-fueled power plant capacity. American Electric Power (AEP) announced in June it was closing five power plants and scaling back operations at six other facilities. AEP estimated that its actions would cost about 600 jobs - jobs that generate approximately $40 million in annual wages and benefits. AEP also noted the billions of dollars in additional compliance costs will result in an abrupt increase in electricity prices.

AEP is not alone. Duke Energy announced it was going to close a coal-fired power plant in Ohio and Georgia Power, a unit of Southern Company, said it would shut three coal facilities in Georgia. Similar to AEP, these energy providers identified EPA’s new regulations as the reason for the plant closures.

If the Cross-State Air Transport and the Boiler MACT rules were not enough, the EPA is also piling on new ozone standards, as well as regulations on coal ash.

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ground level ozone standard would be lowered from 75 parts per billion (ppb) to a range of between 60 to 70 ppb. According to EPA’s own analysis an ozone standard of 60 ppb was estimated to cost about $90 billion a year.

Since emissions from coal-fueled power plants play a role in the formation of ozone, state and local efforts to meet EPA’s new standard, would place coal-powered facilities at a regulatory disadvantage. Coal-based power plants would be under pressure to add expensive equipment, and those costs would be passed on to ratepayers.

In some cases, it would be cheaper to simply close the facilities as we have seen when utilities responded to the previous EPA rules.

The EPA is also proposing to regulate coal combustion products (CCP) – the products remaining after coal combustion – under the Resource Conservation and Recovery Act (RCRA). The EPA is putting forward two regulatory scenarios. One option would classify CCPs as hazardous waste and the other would categorize the substance as non-hazardous.

Veritas Economic Consulting conducted a study to estimate the economic impact of EPA’s proposed regulation of CCPs. The costs are significant but vary widely depending on the agency’s final determination. If EPA regulates CCPs as hazardous, as many 316,000 jobs could be lost over 20 years and management costs could rise as much as $110 billion. Alternatively, if the agency decides coal ash is non-hazardous, as many as 65,000 jobs could be lost, with costs up to $35 billion over the same time period.

Taken individually, these regulations are extremely harmful; collectively they are devastating.

If all the aforementioned regulations come to pass, President Obama will deal a crushing blow to the coal industry and the damaging consequences will ripple through our entire economy. Higher energy prices, lower disposable income and an acceleration of manufacturing jobs exported overseas will be the casualties of Obama’s war on coal.

It’s crucial to recognize that Obama’s war on coal is much less about pollution and climate change but much more about the president’s radical progressive ideology.

Over the last 30 years, significant strides have been made in reducing air pollution while our energy needs and population have grown. During that time period, the six principle – or criteria – air pollutants measured under the National Ambient Air Quality Standards program were reduced by 57 percent. Even the EPA has recognized the progress when it reported; “Emissions of the common air pollutants and their precursors have been reduced significantly since 1980.”

It’s obvious, Obama is delivering on his promise to bankrupt the coal industry and several government, corporate, and environmental allies are assisting his effort. To defend its rightful existence, the industry and its allies must recognize it is at war and return fire with all its resources. After all, “to the victor go the spoils.”

Dr. Tom Borelli is a senior fellow and director of the Free Enterprise Project at the National Center for Public Policy Research (www.nationalcenter.org)

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Editor’s note: We invited Congressman Doug Lamborn (R-CO) to speak to the attendees of our 2011 Coal Market Strategies conference, held Aug. 22 to 24 in Colorado Springs, CO. A portion of the Congressman’s speech is reprinted below.

While there is no escaping the very real threat posed by anti-coal regulations and government action that has been aimed at “bankrupting the coal industry,” we can’t forget that our industry is populated by thousands of extremely creative and resourceful people. Despite the barriers and challenges we face, the people in this industry consistently find a way to succeed. Congressman Lamborn’s comments mirrored that industry-wide mix of sincere concern over questionable policy decisions and steadfast resolve to continue the efficient use of our nation’s most abundant and affordable fossil fuel resource.

Welcome to the beautiful 5th Congressional District of Colorado, which I have the honor of representing in Congress. Thank you for inviting me to join you here this morning. It is truly an honor to be here with you today. […] My staff and I have the privilege of interacting with some of your companies on a frequent basis.

I currently serve as the Chairman of the Energy and Mineral Resources Subcommittee on the Committee of Natural Resources in the House. My subcommittee oversees domestic energy production and mining on federal lands – both onshore and offshore. Our jurisdiction includes the Bureau of Land Management, the U.S. Forest Service’s energy and minerals programs, and the U.S. Geological Survey. More specifically, my subcommittee is the authorizing committee for all energy and minerals programs on the 2.5 billion acre federal estate.

These programs generate billions of dollars for federal, state, and local treasuries, create vast numbers of high-paying family-wage jobs, and contribute significantly to the energy and mineral needs of the country.

Republicans on my Subcommittee are committed to being environmentally responsible, job-friendly, and attentive to the consumer as we develop America’s vast energy and mineral resources.

I have served on the House Committee on Natural Resources during my entire five-year tenure in the House of Representatives and am familiar with many of the issues facing the coal industry. As Ranking Member of the Subcommittee during the 111th Congress, and, now as Chairman, I am even more deeply involved than ever in the oversight of
the mining process and with the regulatory battles that currently challenge the industry as a whole.

As you know, coal was instrumental in the rise of the United States as a nation. It helped fuel the United States’ ascent to economic greatness. We became an industrialized force to be reckoned with and the greatest and largest economy on the face of the Earth. This would not have been possible without coal.

The impact of coal nowadays is no less evident. Today, coal keeps the United States strong by providing low-cost electricity that allows us to remain a leader in an increasingly competitive and challenging global economy. Coal supplies about one-half of our electricity needs in this country. It provides well-paying jobs for hundreds of thousands of Americans in the coal, rail, and electric utility sectors. Coal is the backbone of our baseload power fleet. It is reliable and it is cheap and it is ours.

Nine out of every ten tons of coal mined each year in the U.S. are used for domestic electricity generation. We don’t have to import it from overseas or even cross friendly borders to get our supply.

There are some, however, who have resolved to inhibit the production and use of coal and other hydrocarbons. Through burdensome and onerous regulations, they have waged a war on coal. Nowhere is this effort more evident than in the current Administration’s effort to rewrite current surface mining rules under the guise of the new “Stream Protection Rule.” The current “Stream Buffer Zone Rule” – now suspended by the Administration, was the result of years of environmental review, public comment and hearings, and responsible rulemaking. These new proposed regulations would supplant regulations that had been finalized in 2008 after a multi-year public process that included numerous environmental analyses and studies. Contrary to what opponents of the rule claimed, the 2008 rule was even more restrictive than the original Reagan-era rule.

What’s even more frustrating is that interested parties are being limited in their ability to push back. The Administration is now purposefully limiting public comment opportunities and rushing forward with a rule that, by its own admission, will cost thousands of jobs. According to the Administration’s own documents from the draft environmental impact statement, the proposed rule could cost at least 7,000 jobs and reduce production in 22 states.

These are 7,000 high paying family-wage-jobs with good benefits in the Appalachian states and other rural areas of the country. With 7,000 breadwinners losing their jobs, the proposed rule will send 28,000 people into poverty, and this is a conservative estimate.

Once this devastating economic impact of the preferred alternative for the new stream buffer zone rewrite became public, the Administration immediately attempted to distance itself from the contractor. It denied any knowledge of the forecasted job losses associated with the Administration’s preferred alternative.

This is all so disconcerting because everyone of all political persuasions agrees that Americans need jobs right now. Americans also need affordable energy right now. Why this administration would work to draft rules that they know, will kill thousands of jobs and increase the price of energy is inexplicable and indefensible, unless of course they have another agenda they are not admitting to.

During the course of this debate, Chairman Hastings and I have initiated an investigation into the Office of Surface Mining’s attempt to rewrite the 2008 stream buffer zone.
rule and the ongoing fiasco resulting from the Administration’s rushed effort to fast track major changes to a significant rule impacting forty-eight percent of the Nation’s electric power generating capacity. The new majority on the Natural Resources Committee now has a special office of investigations for such times as these.

Earlier this year, I had the opportunity to hear from Director Pizarchik in a subcommittee hearing I held regarding the President’s Fiscal Year 2012 budget proposal for the Office of Surface Mining. The President’s proposed budget includes legislative proposals to change the 2006 amendments to Title IV (4) of the Surface Mining Control and Reclamation Act amendments that took Congress ten years to negotiate and pass. The proposed changes to Title IV (4) will have a detrimental effect on the original deal states made with the federal government and codified in SMCRA where fifty percent of the abandoned mine land fees are returned to the state of origin. If the Administration’s amendments are adopted those states that are significant donors to the federal program will question what they get in return for their mandatory investment.

Since this administration took office, the Department of the Interior has consistently taken steps to reduce access to domestic energy and mineral resources on federal lands, even including, ironically enough, renewable resources like wind and solar. […]

More than 130,000 Americans depend on coal production for their livelihood. Throughout America there are places where the only local industry is the coal mine. While the current Administration may think it is a “preferred alternative” to displace tens of thousands of workers, destroying coal mining will kill these one-industry towns, push tens of thousands of American families into poverty, and leave our nation poorer – all counter to the original intent of SMCRA.

SMCRA was designed to promote the development of the Nation’s largest resource of conventional fuel to help meet the energy needs of the American people while ensuring that the extraction of the coal resources is done in an environmentally responsible manner.

It is in no small part due to development of our abundant natural resources that America became the richest country on the face of the earth, won world wars, and raised our standard of living far above most other countries. Increasing access to these resources will allow us to become less dependent on foreign sources of energy and minerals, create new private sector jobs, and add revenue to government treasuries, thus reducing the national debt and increasing our national and economic security.

Your meeting here this week comes at an important turning point for the United States. We face a recession of epic proportions that has impacted every facet of our economy. I believe this Administration has failed to address the problems that have driven us into this recession. Professor James Hamilton from the University of California San Diego (UCSD) has written “nine out of ten of the U.S. recessions since World War II were preceded by a spike up in oil prices.” Does that sound familiar?

And yet now we are hearing some in Washington say we are “over consuming” oil and that prices are too low and need to be pushed higher to discourage consumption. Why would we need to lower supply and raise prices?

Americans want Washington to get out of the way so we can produce more domestic energy, lower gasoline and energy prices, and help small business begin hiring again.”
as the prime cosponsor, are the first steps in reforming our domestic energy policies to set us forward on a new path of expanding production of our nation’s resources.

[...]

To date my subcommittee has held or been responsible for more hearings in the first seven months of this year than were held by it during the entire last Congress.

Tomorrow my subcommittee will hold a field hearing in Grand Junction, Colorado to examine “American Jobs and Energy Security: Domestic Oil Shale the Status of Research, Regulation and Roadblocks.”

Additional hearings on abandoned mined lands, SMCRA, and the pending re-write of the “Stream Buffer Zone Rule,” are planned for September and October of this year.

These are just some of the issues I am working on with my fellow Republicans in Congress to promote energy security. Energy development and production delivers jobs, economic growth, and a secure energy future for our nation.

I want to congratulate the coal industry on the dedication of the Dry Fork Station on Thursday, August 11, 2011 – a fantastic state of the art, coal-fired electrical power generation plant owned by Basin Electric Power Cooperative and the Wyoming Municipal Power Agency. Many proposed coal-fired power plants have been put on hold pending the outcome of possible climate change legislation and new regulations being promulgated by EPA. The owners of this facility bit the bullet and built a plant designed to cope with possible new regulations.

Coal is a critically important component of the Nation’s energy mix and will be so long into the future – while alternative and renewable energy sources will play at best a supporting role. The base-load power for the Nation comes now and must for the foreseeable future come from COAL, as well as natural gas, and nuclear power plants. Your industry has a great story to tell and I encourage you to tell it.

The United States is a nation rich in energy resources. There’s absolutely no question that developing these resources will help this country become more stable economically.

As to the future, despite the naysayers who oppose the use of coal, even to the detriment of our nation, and the dreamers, who do not understand that energy does not come from simply wishing it to be, coal has a vital role to play in our nation’s future.

We have a two to three hundred year supply of coal. It would be the height of foolishness to simply throw it away. I, for one, do not think it wise to abandon an energy source that has served us so well and that is so established in our way of life in exchange for speculative climate gains decades or even centuries in the future. Through technology, we have continually made coal more efficient and clean, and I have every confidence that we will continue to do so going forward.

I stand with you to help bring an even brighter future and a more prosperous economy to America. I want to thank you for the opportunity to be here today.

Congressman Doug Lamborn represents the 5th District of Colorado in the US House of Representatives (lamborn.house.gov).

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Export Opportunities Booming for American Coal Producers

By Brooklyn Guillory, Argus Media Ltd.

Emerging markets

The US has developed into a crucial base supplier of coal to European, South American and Asian markets hungry for reliable and competitively priced tonnage. The shift differs from other recent export booms, when coking coal fueled the surge. Now, demand for US steam coal is jumping, even as new environmental rules make generators here look to alternative energy sources.

More and more South African coal is headed to Asia, raising prices for that supply and encouraging...
European generators to seek alternatives from Central Appalachia and the Illinois Basin. Meanwhile, US producers including Peabody Energy, Foresight Energy and Cloud Peak Energy are cementing partnerships with buyers in China and India, which will ensure these trade links continue in coming years.

And a growing spot market for US coal shipments has emerged. The seaborne markets on the East Coast at Hampton Roads and the Gulf Coast at New Orleans have developed into top markets for US coal trading, growth reflected in four new Argus indices of coal prices in the region. Participants in the FOB New Orleans and FOB Hampton Roads markets say price discovery in these areas helps them assess opportunities and risks in the US export market.

There is plenty of reason for producers to test the waters on exports, if not to dive in. During the first five months of 2011, US coking coal exports grew 17 percent from a year ago to 29.2mn short tons, according to US Census data. Steam coal exports grew at an even faster pace, doubling to 15.3mn st between January and May from the same period last year.

Fortifying positions
The rest of the year is expected to be just as strong, with industry members positioning themselves to take advantage of these new markets.

Peabody Energy has long had a significant global footprint, and in the second quarter pointed to booming export demand for both coking coal and thermal coal. “We are increasing our Powder River Basin shipments this year from the US Gulf and West Coast and we recently sold Illinois Basin coal to India,” Greg Boyce, Peabody’s chief executive, said. India is now the world’s fastest growing importer, with its thermal coal imports up 45 percent per year to date, he noted.

Peabody also expects exports to grab a larger slice of its output from the Powder River Basin (PRB). PRB production will become “increasingly valuable” as a backfill in US markets, replacing other production shifted to the seaborne markets.

Plenty of Peabody’s PRB coal is likely to be exported from the proposed Gateway Pacific terminal at Cherry Point, Washington, where the company has a 24mn metric tonne/yr throughput agreement. In the meantime, the company is expanding its commercial discussions with Asian customers likely to receive exports from Gateway.

US railroads also noted that their second-quarter coal exports grew year over year, on demand from Asia, Europe and South America. CSX now expects exports to remain strong next year and beyond, raising its guidance for these shipments to 42-45mn short tons in 2011 from a previous estimate of 40mn tons.

Union Pacific said coal export volume from its Colorado-Utah market was up 700,000 tons from river terminals and west coast ports, though it did not disclose its total exports.

Riding the tsunami
New coal export capacity has been announced this year at an unprecedented pace of growth, made possible by US producers signing long-term volume commitments, as well as eastern railroads adding resources to lines and terminals.

Kinder Morgan was first in January announcing a $70mn, 4mn ton/yr addition to its International Marine Terminal south of New Orleans. It will serve Alpha Natural Resources shipments when it is completed in 2012. The terminal operator is also expanding its Houston bulk terminal to handle up to 2.2mn tons/yr of Colorado coal from a “large western coal producer.”

In May, the eastern railroads began shipping export coal to Kinder Morgan’s Fairless Hills terminal near Philadelphia, and the company said on its July earnings call it expects to add another customer at International Marine Terminal “within the next few weeks.” It hopes to have agreements with two more customers for the Houston terminal “within the quarter,” chief executive Richard Kinder said.

“We talk a lot around here about tsunamis. Those are events or things that have the ability to move the needle, and certainly in my view the opportunities in the shale plays and export coal opportunities certainly fit the definition of tsunami,” Kinder said. The opportunities to develop midstream projects for most energy forms “have never been better during the 30-plus years I have been in the business,” he said.

He also noted that major American coal companies are very interested in tying up – for long periods of time – facilities that will allow them to move coal product by rail or barge.
“They like having both options to facilities like we have on the coast, and then to be able to load them into ships to go wherever they have long-term contracts,” Kinder said.

The new workhorses

Dutch trader Trafigura in May said it plans to spend $28mn to revive the idled Burnside terminal in Louisiana, and through a $100mn expansion raise its capacity to around 10mn metric tonnes/yr for coal, bauxite and alumina. Trafigura expects its first inbound bauxite cargos in late September, the first outbound alumina shortly afterwards and the first coal exports in early 2012.

“The US faces real constraints in supplying coal. The 20 or so terminal facilities across the country are simply maxed out. The development of Burnside as one of the country’s biggest terminals will create new opportunities to establish optimized flows of coal,” Trafigura director Simon Collins said.

Chris Cline’s Foresight Energy in June agreed to buy Canadian National’s IC Rail Marine Terminal in Convent, Louisiana, saying it plans to double the terminal’s export capacity to 8mn st/yr, with the potential of another 8mn st/yr. The Illinois Basin producer is rapidly expanding its production and using both rail and barge to get to the Gulf, leading to added transfer capacity on the Mississippi and Ohio rivers.

With IMT repairing its shiploader, the workhorses for the lower Mississippi River’s surge in exports this year have been midstream operators Associated Terminals, Cooper Consolidated and St. James Partners, with around 28 floating cranes between them.

Taking into account import and export transfers of other commodities, 12 of those cranes could be devoted to coal full time, giving an annual capacity of roughly 18.5mn mt, said Associated Terminals vice president Terry May.

Coal exporters had been wary of spending heavily on port expansions – partly after US west coast investors got burned in the 1970s by the rapid climb of the dollar against Australian currency. They learned how fast US sales could be choked off to Asia. But the outlook is changing as the US dollar looks weaker and Asian demand keeps firming.

This is spurring producer hopes. Peabody’s Boyce said China’s imports have risen for four straight months, triggered by fears of rolling blackouts due to insufficient coal in parts of the country. This, and many other flags, might only be the beginning, he says. The world is still “in the early stages of a long period of major demand growth.”

Brooklyn Guillory is an Inside Sales Representative at Argus Media, Inc.
Look out, Appalachia:

By Robin Millican, Institute for Energy Research

In his documentary *The Last Mountain*, featuring Robert F. Kennedy, Jr., director Bill Haney weaves quite a tale of intrigue in the quest to rebrand surface mining as “mountain-top removal,” an emotionally-charged term that carries infinitely more public relations punch. Allegations of complicity between former West Virginia Governor Joe Manchin, the Bush Administration, and coal executives to force surface mining upon the unwilling residents of Appalachia feature heavily, with Mr. Kennedy characterizing mining activities as loosely regulated at best… and criminal at worst.

However, Haney takes aim at more than just political corruption in *The Last Mountain*. The film attributes a plethora of wide-ranging environmental and
economic impacts to surface mining and coal plants, including claims of inadequate reclamation requirements, groundwater contamination, flash flooding, and impacts to streams.

If true, these claims would almost certainly empower policymakers and regulators like the Environmental Protection Agency to put an end to the practice of surface mining. But do they match up with reality?

**Regulatory framework**

Many statutes currently govern mining practices in the United States. The Surface Mining Control and Reclamation Act (SMCRA) is the primary environmental law governing coal mining and reclamation activities; however, other federal laws that apply to mining practices include the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, the Toxic Substances Control Act, and the National Environmental Policy Act.

Despite this extensive regulatory framework, a recurring theme in *The Last Mountain* is that the coal industry isn’t regulated well enough and political interests have intervened to keep rules lax. For example, Kennedy claims in the film that until the Bush Administration changed the regulations, surface mining used to be effectively illegal.
in the United States because coal waste could not be placed into U.S. waters.

Kennedy’s claim is misleading at best. In reality, surface mining has been in practice since the 1960s, and the key regulatory change in this area has been to alter how close operations can occur to streams – provided there is no significant harm to the environment.

If anything, the requirements that industry must meet in order to obtain a mine permit should speak to the considerable involvement of the federal government in regulating every aspect of mining activities. Prior to applying for a permit, the applicant must collect baseline environmental data from the proposed area, which includes surveys of soils, vegetation, wildlife, surface and groundwater hydrology, climatology, wetlands conditions, and cultural and historical resources. This information can take over a year to compile, depending on the mine characteristics.

Once a permit application has been submitted to the regulatory agency, it must undergo a completeness review and a technical review, as well as a public notice and comment period. This process will take several additional years before a permit can be issued.

**Reclamation**

One of the most sensational claims made in the film is that SMCRA’s reclamation requirements – criteria by which mine sites are restored to their original contour, or an intended or better use – contain so many loopholes that coal companies have no responsibility to do a good job restoring old mine sites. This point is notably reinforced by the movie’s many aerial shots of active surface mining operations – Kennedy refers to them as “moonscapes” – which are disingenuously presented as if the audience were viewing the end result.

The thought that companies can ravage scenic landscapes with impunity is sure to evoke a strong response in most people. However, the film neglects to mention that SMCRA requires each mining site to have a Post Mining Land Use (PMLU) plan – which must be approved before mining begins – to designate what use the land will be put to and explain how the site will be reshaped and re-planted post-mining.

Furthermore, as a prerequisite for obtaining a permit, companies must post a reclamation bond to ensure that the regulator will have sufficient funds to remediate the site if the operator fails to meet the requirements of the PMLU plan. For mine lands closed prior to 1977, when SMCRA came into effect, the Abandoned Mine Lands Program covers reclamation activities by requiring a fee on all coal produced – the current fee is $0.315 per ton on surface-mined coal.

**Stream burial, flooding, and groundwater contamination**

Another contention advanced in *The Last Mountain* is that surface mining activities have buried over 2,000 miles of streams with overburden. However, the film leaves out the fact that in order to obtain the necessary U.S. Army Corps of Engineers Dredge and Fill Permit, companies must create a detailed set of instructions, designs, and accounting sheets showing how the impacted wetlands or streams will
be replaced, which is known as the Compensatory Mitigation Plan.

The film also fails to quantify the fact that there are three types of streams that occur, with some being more important to conserve than others. The 2,000-mile figure is misleadingly alarmist, as most valley fills are placed within streams that are intermittent, seasonal streams, or ephemeral streams caused by snowmelt or rainfall. Very rarely are fills placed within perennial, ever-flowing streams.

Numerous safeguards also exist to protect groundwater resources. Before and during mining operations, operators are required under SMCRA to monitor groundwater levels, infiltration rates, subsurface flow, storage characteristics, and the quality of the groundwater in their assessment of the probable hydrologic consequences of mining. In addition, operators must include a detailed description of how they intend to protect the quality and quantity of groundwater resources in their reclamation plan. If these requirements are not met, the operator must agree to provide an alternate water source.

Conclusion

Although The Last Mountain is a thinly veiled attempt to demonize coal and promote wind energy, the filmmakers are unfortunately not alone in their anti-surface mining sentiments.

On July 21, 2011, the Environmental Protection Agency announced that it had finalized the new Clean Water Act guidelines for surface mining activities; under the new rules, the use of valley fills will be severely restricted, and permits will be scrutinized even more rigorously.

If true, these claims would almost certainly empower policymakers and regulators like the Environmental Protection Agency to put an end to the practice of surface mining. But do they match up with reality?

The ramifications of this decision for the U.S. economy will be significant. Nearly half of the electricity currently consumed in the United States comes from coal, and according to a study based on U.S. Bureau of Economic Analysis data, America’s domestic coal mining industry was responsible for 154,000 direct jobs and over 400,000 indirect jobs in 2008. Additionally, the United States has the world’s largest coal reserves at 29 percent of total reserves, and is the world’s second largest coal producer.

These figures represent a huge boon to the U.S. in a time of economic uncertainty, and are certainly a counterpoint to the opinion advanced by Haney and Kennedy that the coal industry is somehow malicious and evildoing. In fact, by not attempting to ground The Last Mountain in factual and scientific information, and instead using citizen activists for information rather than scientists and experts, the filmmakers failed to provide the necessary perspective, scientific rigor, and intellectual honesty needed to convince.

Robin Millican is a public policy associate at the Institute for Energy Research.
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Pity poor Mongolia, bereft of fiscal resources, caught between the ambitions of its superpower neighbors, Russia and China.

Ulaan Bator’s situation is akin to interwar Poland, dexterously attempting to reconcile its foreign policy between the USSR’s hammer and Nazi Germany’s hard place. Who will ultimately benefit is anyone’s guess, but the country’s nascent energy and mineralogical riches have opened the land of Genghis Khan to a fierce bidding war whose ultimate outcome is unclear at best.

The nation is essentially empty, its 2.8 million citizens producing an average population density of just over one person per square kilometer.

That said, the country’s mineralogical riches are more than impressive. More importantly for global mining interests, Mongolia was a Soviet satrapy from 1924 until the 1991 implosion of the USSR and those reserves remained offline. Until now.

Whaddy looking for? Mongolia’s mining sector has some of the world’s richest deposits of gold and copper,
uranium, coal, fluorspar as well as (rare earth elements) REEs such as tantalum, niobium, thorium, yttrium and zircon. According to a 2009 estimation by the U.S. Geological Survey, Mongolia has 31 million tons of rare earth reserves, or 16.77 percent of the world’s total, exceeded only by China.

Oh, and coal.

Erdenes, a state firm is overseeing the Tavan Tolgoi (“Five Hills”) massive coal deposit located in the east Tsankhi area of Mongolia’s Gobi desert, estimated to hold over 7.5 billion metric tons of coking coal, essential for making steel, and the currently world’s biggest untapped deposit.

Where’s it gonna go?

Potential suitors include Russian, Chinese, Japanese and South Korean firms, while representatives from 20 global investment banks jetted into sunny Ulaan Bator to make their pitches.

While Mongolia’s economy was traditionally based on herding and agriculture, neighboring China’s rising demand for minerals has underpinned its current mining boom, and Beijing would undoubtedly happily buy virtually all of Tavan Tolgoi’s output.

But business is business, and Mongolia is currently weighing all offers.

In 2006 Mongolia’s Mineral Law was amended to increase government royalties and licensing fees, reduce tax incentives, set duration terms for exploration licenses, and provide for up to 50 percent government ownership of strategically important resources when jointly funded by the state and private investors. On 25 August 2009 the Ulsyn Ikh Khural (State Great Hural, or Parliament) finally repealed the 68 percent windfall profit tax, effective from January 1, 2011, setting the stage of massive foreign investment.

36 percent of the population lives below the poverty line, with an annual per capita income of $2,900.

Since April 2010 Mongolia’s benchmark MSE Top 20 Index has been the world’s best performer and its currency, the tugrik, the fifth-biggest gainer against the dollar. The International Monetary Fund says that Mongolia’s economic growth may surge to 23 percent in 2013, more than twice the forecast expansion in China.

In June the Mongolian government gave each citizen 538 shares in the upcoming Erdenes-Tavan Tolgoi IPO. If the IPO hits its anticipated $10 billion, each Mongolian shares would be worth about $360.

The local populace will be watching the Tavan Tolgoi negotiations closely, as Mongolia is a country where the CIA estimates that more that 36 percent of the population lives below the poverty line, with an annual per capita income of $2,900. After all, in a democracy, a 2.8 millionth share in a site estimated to be worth more than $48 billion is nothing to sneeze at, and is cheaper than mounting the pony and replaying the campaigns of Genghis Khan to secure booty.

John C.K. Daly is a regular contributor to Oilprice.com, with expertise in Eurasian energy policy.
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The COAL Hard Facts: ‘Old King Coal’ is Still King

*Can America get its fiscal house in order or could it fall into bankruptcy?*

By Wayne T. Rutherford
Pike County (Kentucky) Judge/Executive

**Editor’s note:** In previous editions of *American Coal* magazine, we have sought your input as a means of promoting ACC publications as a community of readers. We value your input and comment and would love to hear from you as well. So with this issue, we’re introducing a Comment section that will feature articles submitted by our readers on issues that impact their daily lives.

We felt it was important to print this article to highlight the work that real people across the country are doing to promote and defend coal as an economic, abundant/secure, and environmentally sound domestic energy resource. Mr. Rutherford’s comments demonstrate that he is willing to stand on the front lines, correcting misinformation and anti-coal messages. We’re glad for his support and would like to ask our readers how can you get involved in your community to defend coal?

**We, as Americans,** cannot continue to kick the can down the road. How can we get the facts with some polls showing most Americans are ignorant to the United States’ budget situation?

Facts are sometimes a stubborn thing. Let’s take a hard look at America’s financial and energy realities of today: debt and deficiency, instability in the Middle East where most of the oil we import is produced and Japan’s nuclear plants melting down. Has anyone ever heard of a coal-fueled power plant melting down?

I was astounded to discover that America now borrows 42 CENTS of every DOLLAR that is spent. Are we stupid? Wake up America!

America spends **$400,000 PER MINUTE, $15 MILLION PER HOUR, AND $360 MILLION PER DAY** on imported oil. America imports more than...
60 percent of the oil it consumes, and the military is the largest user. To continue to spend this amount on imported foreign oil means the poorhouse is just around the corner.

The rate of spending on imported oil has wounded America’s economy. **OVER A TRILLION DOLLARS A YEAR!** America must stop this economic drain.

Can America free itself from its dependence on imported foreign oil? The answer is yes and the solution is simple: by using the abundant energy source produced within our borders – **COAL.** America has **COAL** reserves that will last for 245 years and **COAL** is by far the most inexpensive source of fuel per BTU. America’s **COAL** deposits contain more energy than the entire world’s oil.

America can’t continue to look beyond coal and our unavoidable energy demands will have to be met. **COAL** fuels more electricity in America than all other sources combined. Electricity from **COAL** is essential and affordable. America has over 22 percent of the world’s **COAL** reserves and has only a mere 3 percent of the world’s natural gas reserves. Using **COAL** mined right here in the United States would save this great country from possible bankruptcy.

**COAL** is the beneficiary of the Japan’s nuclear power plant issues. Nuclear radiation causes cancer, brings death and is allowing people to get re-acquainted with America’s best and safest energy friend – **COAL.**

It is projected that domestic **COAL** production must double by 2020 to meet America’s electricity needs. America’s insatiable lust for petroleum to maintain a way of life or quality of life has put America in peril – our financial house could fall.

Solving America’s national security problem is simple: **MORE COAL PRODUCTION. COAL** can’t be set aside when one takes into account its availability, lower cost and is a domestic energy source. **COAL** fueled America’s Industrial Revolution, which brought Americans a quality of life second-to-none in the world. If we don’t bring factual, common sense dialog to the table with regard to energy we could lose our freedom and our way of life.

If we are borrowing **42 CENTS OF EVERY DOLLAR** we spend, China and other foreign countries will own America lock, stock and barrel.

America must create “red, white and blue BTUs.”

**COAL** isn’t the villain some people portray it to be. God put this **COAL** within our borders, and American **COAL** miners are ready to produce more and save this great nation while being the beacon to the rest of the world. Pray for our great country: “America the Beautiful” and “Land of the Free.”

Since the year 2000, the Great Plains Synfuel Plant operated by the Dakota Gasification Company in Beulah, North Dakota, is a model of how **COAL** is being used to produce energy in an efficient and

**Wayne T. Rutherford** is serving his sixth term as judge-executive of Pike County, Ky. Located in the heart of central Appalachia, Pike County prides itself on coal and Rutherford is one of the most outspoken supporters of coal in the nation.

Pike County is No. 1 in the Commonwealth of Kentucky in coal production. If Pike County were a state, it would be tenth in the country in production of coal.

As a young judge-executive, Rutherford traveled to Frankfort, Kentucky’s capital, with an idea that has benefitted Pike County and other coal-producing counties for years and will do so for years to come. That idea: coal severance tax. Deemed the “Father of the Coal Severance Tax” by Kentucky’s leading newspapers, billions of dollars have been given back to develop coal-producing counties and have been put into the coffers of state government.

When coal is under attack, Rutherford stands on the forefront of the fight for coal, calling coal the “hero” and not the “villain” so many try to make it out to be. Coal is currently under attack by the Environmental Protection Agency and Rutherford has fought continuously for the coal industry and the coal miners.

Rutherford trademarked Pike County “America’s Energy Capital™” and works tirelessly to advance and expand energy initiatives throughout the county.
environmentally friendly manner. America needs to take notice. Dakota Gas is gasifying COAL into clean-burning energy for profits and capturing and transporting carbon dioxide (CO2) emissions for a profit also. A solution to carbon modification has been addressed and successfully implemented by Dakota Gas. CLEAN COAL TECHNOLOGY DOES EXIST. Go to www.dakotagas.com and read about the CO2 pipeline. With new technologies we can balance America’s ecology with its economy.

America must be sure there is a secure source of fuel for its power plants. COAL has never disrupted our food chain and caused food prices to escalate.

Understand the COAL HARD FACTS; it’s an easy thing to do. Turn to COAL to save America.

“Today in America, coal is still the main source of producing power. Even electric cars are now powered by coal-based electricity.”

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Build something great™
America’s COAL miners are the backbone of our great country. They produce the COAL that powers the switches that turn on the lights in our homes, factories and businesses. It produces the energy for the printing presses and the steel and machinery that made America the greatest industrial power in the world. America relies on our COAL miners in times of war and peace, they are the heart and soul of America – we should all thank God and draw strength and courage from them.

In the words of President Dwight D. Eisenhower, “The men who mine COAL and fire furnaces and turn lathes and pick cotton all serve as proudly – and as profitably – for America as the statesmen who draft treaties and the legislators who enact our laws.”

Let’s do something that makes sense. America will be in dire straits if we don’t.

Understand the COAL HARD FACTS, it’s an easy thing to do. Turn to COAL to save America; our energy supply chain would never be disrupted.

For America’s energy needs to be met, it will take all sources of energy within our borders. Green energy has to be part of the mix, but green energy is a tough sell. Fossil fuels are much cheaper and green projects seem to be falling by the wayside. Ethanol from corn and soybeans has sent food prices soaring.

Today in America, COAL is still the main source of producing power. Even electric cars are now powered by coal-based electricity.

Some people are not realistic. I observed a group singing “save our mountains, save our trees” while playing wooden guitars.

We will continue to battle vigorously and unapologetically for coal and America’s coal miners. May the winds of change bring support to America’s most important energy industry.

Pray for these heroes – our American COAL miners – who stand ready to save America. These brave, hardworking men and women go into the dark bowels of America to give us lights and fuel our economic needs. God Bless our COAL miners and God Bless America. Thank God for COAL.

Wayne T. Rutherford is serving his sixth term as Pike County Judge/Executive. A noted historian and researcher, he trademarked Pike County as “America’s Energy Capital™.” Pike County is Kentucky’s No. 1 coal producer. This speech was given and these facts presented during the East Kentucky Leadership Conference’s panel discussion called “Fate & Future of Coal and Alternative Energy Sources.”
The U.S. Environmental Protection Agency (EPA) is currently developing a range of new regulations under the Clean Air Act, Clean Water Act and Resource Conservation and Recovery Act (RCRA). These new federal regulations, as they are made final over the next year, are likely to result in substantial capital investments for many coal-fueled generators, and retirement for others. ICF projects that these potential investments could lead to the retirement of 10 to 20 percent of total coal-fueled capacity in the U.S. However, significant uncertainty remains around the timing and compliance options for these regulations as even the “final” Cross-State Air Pollution Rule (CSAPR) has been modified by EPA and reopened to comment, while it continues to be litigated by numerous parties.

The actual amount of coal capacity retired is dependent upon whether capital investments required by the regulations can be covered by the going-forward revenues minus expenses. To a large degree, the extent and timing of these retirements will depend on the effectiveness and applicability of dry sorbent injection for control of acid gases, the balance struck between reliability needs and regulatory timing, and expectations about greenhouse gas (GHG) regulation.

The key new environmental regulations facing generators today include:

- Regulations on SO₂ and NOₓ emissions in 28 states under EPA’s Cross-State Air Pollution Rule (CSAPR)
- Regulations on hazardous air pollutants (HAPs) including HCl, Hg, and PM under EPA’s Proposed Air Toxics Rule (HAPs MACT)
- Regulation of CO₂ under EPA’s New Source Performance Standards (NSPS), or the potential for legislation of CO₂ emissions in the future
- Regulations on cooling water intake structures under section 316(b) of the Clean Water Act (CWA)
- Regulations on ash handling and disposal under EPA’s Resource Conservation and Recovery Act (RCRA)

To evaluate the impacts on coal-fueled generating assets, ICF analyzed a scenario that includes representations of EPA’s four major rules mentioned above, as well as carbon regulations starting in 2020. There is still quite a bit of uncertainty associated with the three proposed rules as they work their way through the regulatory, legal and political process. For example, it is unclear how states will enforce water intake standards, or whether coal ash will be...
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considered hazardous or not. The focus of this article is the impact on smaller coal-fueled units from the proposed HAPs MACT rule, as this rule is the single largest contributor to estimated compliance costs for these smaller units, which tend not to be scrubbed.

The HAPs MACT proposed rule uses hydrogen chloride (HCl) emissions as a surrogate for acid gas emissions that include SO2. The emissions level for HCl is set at 0.002 lb/MMBtu in the proposed rule. Based on information in EPA’s 1999 Information Collection Request, only a very small fraction of coal produced in the U.S. can meet this emissions level without controls. Thus to meet this emissions target, coal-fueled plants will need to use wet or dry scrubbers or dry sorbent injection. As scrubbers can achieve a 99 percent removal rate, scrubbed plants can theoretically use coal that has HCl content up to 0.2 lb/MMBtu. Dry sorbent injection (DSI) combined with a fabric filter has a maximum removal rate of about 90 percent, thus plants using DSI could theoretically use coal that has an HCl content of up to 0.02 lb/MMBtu. DSI has lower capital requirements than scrubbers, making it the option of choice for smaller plant; however, it does have a higher variable cost of operation.

Nearly all of the coal in the Appalachian and Illinois basins has an HCl content of less than 0.2 lb/MMBtu, and greater than 0.02 lb/MMBtu, making it suitable for units that are scrubbed, but not suitable for use in plants using DSI. However, most PRB coal has an HCL content of less than 0.02 lb/MMBtu, which means that units choosing to use DSI, will need to use a large percentage of PRB coal in their burn mix. The Rockies and Southwest basins also have substantial quantities of low HCl content coal; however, rising transportation costs will limit their use.

Approximately two-thirds of coal-fueled capacity, or over 200 GW, has scrubbers installed or plans to install them in the next few years. The remaining 110 GW of uncontrolled coal plants tend to be smaller units that are at least 30 years old. The owners of these older uncontrolled units have difficult choices to make due to the uncertainty of the pending regulations and only the relative certainty in the CSAPR and the HAPs MACT rule, as these units face substantial control costs.

Based on ICF’s analysis of EPA’s new and proposed rules, approximately 50 GW of coal-fueled capacity is expected to retire by 2016. These units tend to be smaller, older and less efficient, as illustrated by the fact that 80 percent of the units are 250 MW or smaller, the median age is 54 years in 2016, and the median heat rate is 11,250 Btu/kWh. The coal plant retirements are expected to be concentrated in the following NERC regions: SERC, RFC, and MRO. The retirements in these three regions account for 80 percent of the expected retirements. Provided enough time, PJM has indicated that the expected coal plant retirements will not affect reliability; however, if the timelines for compliance are not extended in some cases, reliability issues may arise.

While retirement is one compliance option, other plants will choose to retrofit with either a scrubber or with DSI. In ICF’s analysis, approximately 54 GW of coal-fueled capacity retrofits with DSI by 2016. Because the primary source of low chlorine content coal is the PRB, only those plants currently burning, or designed to burn sub-bituminous coal will install DSI. One practical question regarding the large amount of coal capacity retrofitting with DSI, is whether enough sorbent can be mined and transported to meet the needs of these plants. Traditional
sorbents are sodium based; however, work is being done to develop calcium-based sorbents, the combination of which might provide enough sorbent for 54 GW of DSI fitted coal capacity. Another question is whether there is enough engineering and construction capacity to install DSI at 54 GW of coal-fueled capacity in the next five years.

ICF also conducted several sensitivities where the natural gas prices and the capital and operating costs of DSI were varied. The results of these sensitivities indicate that the cost of DSI primarily affects whether units choose to retrofit with DSI or with scrubbers, as there was no change in retirements when only the DSI costs were adjusted. A 30 percent increase in variable operating costs led to a 14 percent drop in capacity retrofitted with DSI. An increase in capital costs of 20 percent, on top of the variable cost increase, led to an additional 19 percent drop in capacity retrofitted with DSI. Although the capital costs of DSI are close to one tenth the capital cost of a scrubber, the choice to retrofit with DSI or a scrubber is quite sensitive to the capital cost of DSI due to the higher variable operating costs. The sensitivities varying the natural gas prices show that the gas price primarily drives the amount of coal units that retire, although higher gas prices also lead more units to choose to retrofit with scrubbers than with DSI.

There is no doubt that the impending EPA regulations will have a significant impact on the economics for individual plants, especially those that are smaller, older, and unscrubbed. In the short term, while the rules are being finalized, and litigated in the case of CSAPR, smaller coal plants can keep their options open, while still remaining in compliance, by burning ultra-low sulfur coal, and if applicable, running scrubbers more frequently. During this period plant owners would do well to analyze each unit on a long term basis that includes CSAPR and all three of the proposed EPA regulations, as well as expectations of natural gas and power prices. 

Jeff Archibald is a project manager at ICF International (www.icfi.com).
Some Thoughts on Mining Tax Policy Today

By Steve Ralbovsky & Hallie Caywood, PricewaterhouseCoopers

There are two significant aspects to the current global mining tax policy debate:

1. The level of proposed or enacted increases in the taxes and royalties levied on mining companies; and
2. How much data regarding mining taxes and royalties paid to governments should mining companies be required to disclose to the public?

These topics are interrelated since a discussion of “how much should be levied” is typically based on what is “fair” and, in order to be able to determine whether what the mining industry pays is “fair,” one should know all of the amounts the mining industry pays to government.

Increases to royalties and taxes

A natural and appropriate obligation of a federal government is to levy taxes and royalties on a mining company, yielding the maximum return to the government and its citizens from the minerals, without levying taxes and royalties that are so high that the mining company chooses not to mine in that country. The natural and appropriate corollary obligation of the mining company is to maximize shareholder return, net of any required taxes, while operating in a sustainable manner so that the company is permitted to continue mining.

This seemingly simple negotiation, however, plays out against a very political background. For example, countries sometimes use lower rates to attract mining companies to come to their country. The country may be trying to increase employment or increase downstream growth. There is often criticism, however, from local political rivals who claim “too much” is being given up. The mining industry then gets caught up in this political drama.
While political battles and increases to mining taxes and royalties are not uncommon, the fact that one of these debates is occurring in Australia, which has a well developed economy where mining is a significant industry, is unusual and is, therefore, drawing a great deal of attention.

The Australian debate began in May 2010 when a major proposal to levy more taxes, emanating from a general fiscal study, was squarely aimed at the mining industry in the form of a 40 percent Resource Super Profits Tax. The debate quickly escalated and, in only two months, it reached a point such that Prime Minister, Kevin Rudd, was ousted by his own party. His successor, Julia Gillard, said she would propose a different mining tax scheme, which she did in the form of a resource rent tax. But the debate still continues into the second half of 2011, over a year later. Its resolution is not expected to occur until after national elections are held in the fall of 2011.

In addition, the debate in Australia has expanded to include discussion and disagreement around a proposed carbon cap and trade scheme. While these rules would impact most industries, mining would be especially affected. Once again, politics are figuring into major investment decisions.

The global mining industry is watching these debates closely, not only because of the significance of Australia to the current mining industry and Australia’s reputation as an industry leader, but because Australia is often seen as very important to a mining company hoping to do business in or with China and the rest of Asia. Western miners will no doubt continue their Chinese/Asian strategies, but will they go through Oz if the rules become too unfavorable?

Other countries are also reexaming their mining tax/royalty regimes. Peru has elected a new president, Ollanta Humala, who was generally expected to support an increase in mining taxes, although he has yet to reveal his actual position now that he has been elected. Some wonder if he will go even further and propose nationalizing assets. Not only are the companies currently operating in Peru closely watching these developments, the companies considering investing in Peru are also watching – from the sidelines, benefitting neither the companies nor Peru.

Chile enacted a significant mining tax increase in late 2010 as a way of raising money to pay for reconstruction necessitated by the February 2010 earthquake that heavily damaged parts of the country. The new tax rate goes as high as 14 percent on certain minerals and is expected to raise $1 billion over three years to pay for reconstruction.

As in many countries, some miners had stabilization agreements with the Chilean government and their taxes could not be raised currently. These one-off arrangements are common outside of the US and often add to the complexity of a country raising taxes.

This activity in ‘traditional’ mining countries seems to have encouraged countries elsewhere around the globe, including several African countries, to consider raising their mining tax levies. There are proposals or studies considering raising mining taxes in: Gabon, Ghana, Guinea, Mozambique, Namibia, Tanzania and Uganda. Mining companies considering investing or expanding in any of these countries must consider not only the actual cost of the enacted increased levies, but “What will they change next? And when?” Uncertainty and multiple unexpected changes in tax/royalty laws can be as discouraging to mining companies as actual, significant increases in tax rates.

Increased Disclosure

A separate issue from “How much should companies be required to pay in mining taxes and royalties?” is the question “How much should mining companies have to disclose regarding the various taxes and royalties they pay to various governments?” In the not too distant past, taxpayers had a right to privacy when dealing with tax authorities. Most industries and all individuals continue to have that same right and expectation. Mining and other extractive industry members seem...
to be in the process of being stripped of that right and expectation.

A couple of global NGO initiatives, both formed in the early 2000s, have had significant recent influence in the US regarding mining tax and royalty disclosure. The Publish What You Pay initiative claims to help “sustainable investors” see what mining/extractive companies are paying for minerals, so that the investors can decide whether the companies are “paying their fair share.” The contemporaneously created Extractive Industry Transparency Initiative (EITI) is aimed at preventing companies from paying, and corrupt government officials from accepting, improper payments.

Section 1504 of the Dodd Frank Financial Reform Act now requires mining and other extractive industry companies to disclose in their SEC filings federal income taxes and other payments paid to governments in order to access minerals. The scant committee reports on this section of Dodd Frank refer to EITI, but the legislation actually reflects Publish What You Pay more than EITI.

The SEC is still struggling with writing the rules to implement this legislation, perhaps caught up in the fact that the Dodd Frank disclosures are on a cash basis (while financial statements are obviously on an accrual basis), there seems to be no concept of materiality, and detail is required on a ‘per project’ basis, suggesting a tremendous amount of detail.

All of this begs the question: How can even the most sustainable investor decide whether a mining company is paying “its fair share for a mineral interest” based on selected cash payments regarding an individual project looking at data on a year by year basis?

Interestingly, mining companies often voluntarily disclose income tax and non-income tax information, including royalty information, in an effort to demonstrate their sustainability qualifications. However, those reports are typically compiled with more time than what is allowed for SEC filings. Further, these reports are also sometimes unaudited and are prepared with a sense of materiality — all important differences when compared to the currently mandated disclosures, at least as we expect the rules to ultimately be written.

As of this writing, the SEC is behind their required deadline of providing final rules under Dodd Frank. We’re told to look for final rules “sometime between August and December 2011.” The rules are slated to be effective for 2012.

Several questions seem to arise from these debates:

1. “Paying your fair share” is a relative term and should be measured against what the mining company gets from the country and what other taxpayers pay in the same country. How can anyone form an opinion on this question without knowing all the amounts a mining company pays, as well as what other industries pay in that jurisdiction?

2. Considerable effort will be required to provide the detail that the current rules contemplate. Will the cost of providing the detail, or the detail itself, be enough to allow investors to decide what is fair?

3. Where does the ‘ripple effect’ of a vibrant economy based on mining come into play? Aren’t the jobs in the industry, as well as the goods and services supplied to the industry, the downstream manufacturing, and the taxes paid by everyone involved in the equation, at least as important as getting the ‘last dollar’ of tax and royalty revenue? (One would assume they are just as important to the people who work in the ripple effect.)

4. It is unlikely those seeking more taxes and royalties will ever say, “Enough already, you’re embarrassing us. Stop paying so much.” So, are the next questions: “How does the government spend the money? Are the citizens of the countries getting their money’s worth?” Should mining companies even be asking those questions?

5. What about normal expectations on behalf of the companies and the countries to negotiate and conclude business deals in confidence; is this no longer a valid principle?

6. Finally, why should disclosure requirements focus only on mining and extractive industries? Shouldn’t sustainable investors want to know what all taxpayers pay in taxes? And shouldn’t the rest of us know what those sustainable investors pay in taxes?

Steve Raibovsky is PricewaterhouseCoopers’ US Mining Leader and its Global Mining Tax Leader. Hallie Caywood is a US Tax Director in PwC’s core Mining Tax Group – www.pwc.com.
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India’s Overseas Coal Hunger

By Salva Resources

Indian steel, power and commodity investors have featured heavily in recent mining press due to acquisitions and sustained interest in international mining assets. China, Japan and Korea have led the charge to secure coal supplies from mineral-rich countries like Australia and Indonesia with great success. Although a late entrant, India appears to be playing catch-up in the coal asset acquisition in a wider geographical horizon, including South Africa, Mozambique, the USA and Canada. This article describes India’s endeavour to lessen dependency on overseas coal exporters, which may have important implications for global coal trading dynamics.

What’s Driving Overseas Acquisitions?

India is the third largest coal-producing country in the world with production of 525Mtpa in FY10-11, and has 277Bt in estimated reserves and the world’s largest coal producing company – Coal India Ltd. So what is driving Indian corporations to step out and find coal abroad? The main reason is burgeoning coal demand. With the rapid growth of the Indian economy, coal demand is outpacing domestic supply, and coal demand is expected to exceed 1.3Bt by FY20-21 from nearly 600Mt in FY10-11, (see graph).

Such robust demand is unlikely to be met by domestic supply alone, as the majority of India’s coal reserves are located in underdeveloped eastern states where infrastructure is poor, poverty rife and extremist insurgencies threaten stability. Moreover, excessive government bureaucracy, inefficiency and environmental restrictions impede India’s ability to increase domestic supply. In general, environmental and forest clearing take an average of three to four years. Also, a significant number of projects are encountering problems related to land acquisition.

These factors – coupled with the poor quality of domestic coal, increased price volatility of imported coal and cost reduction pressures – are all motivating Indian companies to secure coal assets abroad in order to feed their robust demand growth.

The Indian Coal Hunters

India has so far purchased some 12Bt of coal reserves from countries including Australia, Indonesia, Mozambique, South Africa, USA and Zambia. As well as
Indian companies acquired coal mines abroad

<table>
<thead>
<tr>
<th>Country</th>
<th>Companies</th>
<th>Reserves (Mt)</th>
</tr>
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<tbody>
<tr>
<td>Australia</td>
<td>Bhushan Steel, Ennore Coke, Gujurat NRE Coke, Lanco Infratech</td>
<td>2,230</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Adani Enterprises Ltd, Essar Power, GMR Gupta Coal, JSPL, Madhucon Project, Mercator Lines, Monnet Ispat, Nava Bharat Ventures, Oswal Chemicals &amp; fertilizers, Reliance Power, Rohit Ferro Tech, Subhash Projects, Tata Power, Videocon Natural Resources Ltd.</td>
<td>5,476</td>
</tr>
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<td>Mozambique</td>
<td>CIL, Gremach, JSW Steel, Mercator Lines, Tata Steel</td>
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<td>GMR, JSPL</td>
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<td>USA</td>
<td>Haldia Coke, JSW Steel</td>
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<td>130</td>
</tr>
<tr>
<td>Total</td>
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<td>13,116</td>
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</tbody>
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Source: Company reports, news articles

Steel and power generation producers who are acquiring overseas coal assets, players from other industries including shipping, fertilizers and traders are also actively engaged in overseas purchases (please see table above).

Among the major acquisitions, Adani’s purchase of Linc Energy’s Galilee coal reserve in Australia with 7.8Bt of resources, for AU$500 million cash up front and a royalty payment of $2/t over 20 years production, has highlighted that Indian companies are serious about securing future coal supplies and are willing to pay for them. Thought to be the largest single investment by an Indian company in Australia, it will help fulfill Adani’s ambition of achieving generating capacity of 20,000MW, 200Mt of coal reserves and 50Mt of coal trading by 2020. Adani also has reserves in Indonesia producing nearly 6Mtpa, and its hunger for further coal acquisitions, particularly in Indonesia and South Africa, continues unabated.

While thermal coal purchases (such as Adani’s) have stolen the headlines, coking coal purchases have also been strong. In 2010, Essar Mineral acquired Trinity Coal with 200Mt of coal resources in Kentucky and West Virginia USA, for US$600 Million. It is currently producing around 7Mt coal per annum which will be increased to 10Mtpa.

Also in 2010, JSW Steel acquired coking coal mines in West Virginia with total reserves of 45Mt. It has plans to produce 1Mt of coal in the first year, starting from July 2011, which will rise to 3Mt in the 3rd year of operation. This will help JSW secure 35 percent of its coking coal requirement to meet its increased steel capacity of 11Mtpa with their new 3.2Mt expansion plan in Vijayanagar, which is on the verge of starting commercial production.

The majority of overseas coal asset acquisitions by Indian companies have taken place in Indonesia. The advantage of Indonesian mines is that they are closer to India, thus lowering transportation costs. Plus the coal quality of Indonesia aptly satisfies the quality requirements of Indian boiler specifications. However, the announcement of a Domestic Market Obligation (DMO) and coal reference price (HBA) in Indonesia has raised some uncertainty among Indian investors. Additionally, supply disruptions from Australia, another favoured destination, in 2008 and 2010/11 due to natural disasters has led Indian companies to rethink their coal supply strategies (85 percent of Indian coking coal imports are from Australia).

Indian Investment in North America

Recent Indian investments in North America have highlighted the growing ties between Indian and US companies. In late July it was reported SunCoke Energy, the largest independent metallurgical coke producer in the US, is seeking a 26 percent stake in India’s Global Coke. Both India and the US have identified vast opportunities in virtually all types of
coal-related activity. The Indo-US Coal & Lignite Working Group was formed in 2005 in order to explore possibilities in the areas of underground and open cast mining, subsurface mapping, coal beneficiation, underground coal gasification, extraction of coal bed methane (CBM), coal mine methane (CMM) and abandoned mine methane (AMM).

A number of Indian companies, including NMDC, SAIL and Tata Steel, are eyeing coking coal mines in British Columbia, Canada. Though JSW Energy’s plan to take over Canadian coal miner CIC Energy Corp has failed, Coal India Ltd (CIL) is in advanced stages to acquire a 15 percent stake in US-based Peabody Energy’s AUS $600 million Wilkie Creek mining project in Australia.

India is also becoming an important market for US coal exports – both thermal and coking. In 2010, the US exported 171kt of thermal coal to India. The volume of these exports is likely to increase, highlighted by the 277kt of thermal coal exported to India from January to April this year. US coking coal exports to India are also increasing in significance – 2.3Mt of US coking coal was exported to India in 2010 (see chart on this page) and 1.4Mt from January to April 2011.

**Reshaping the Coal Market**

The trend towards self-sufficiency will not only help Indian steel and power companies become more cost efficient, but may potentially change the dynamics of global coal trading. Once production from overseas mines starts to reach India, it may reduce sales opportunities in India for global mining giants. The increasingly aggressive and deep-pocketed Indian buyers may also raise the price of coal assets abroad, similar to when China began overseas asset acquisitions. Within India, this development may push the state-run coal producers to improve productivity and increase production, in what will become a more competitive environment. Last but not least, these endeavours will help reduce risk in their business models and, in the long run, ensure sustained growth. Salva expects further deals in the future with Australia, Indonesia, South Africa, Mozambique and the USA all high on the target list for coal-hungry Indian companies.

*This article was prepared by Salva Resources and is based on a report originally published by the Salva Report, available at www.salvareport.com*
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A Staid and Sensible View of Peak Oil

Do you ever get tired of the constant, droning end times dirge played out in the media and by the green industry?

If it’s not species extinctions, it will be raising sea levels. If it isn’t the sea, it will be glaciers. Not glaciers? How about clearcut logging, or mining, or … Well, you get the idea, but we can’t quit this list without adding “peak oil” to the mix.

Much like the sandwich board-clad “prophet” ceaselessly prowling the streets screeching about the coming apocalypse, the peak oil crowd has been infested with the ideologically and environmentally extreme from its genesis. Therefore, discussions of peaking energy have a habit of going from zero to full on Armageddon in very short order, making it difficult to take much of peak oil theorizing seriously.

The authors of The Impending World Energy Mess, Robert Hirsch, Roger Bezdek, and Robert Wendling (HBW) have managed, however, to move past the hysteria to provide readers with a staid and sensible look into the issue of peak oil, and more broadly liquid fuels shortages. For the uninitiated, HBW offer a solid primer on how dwindling oil reserves would impact our society. Essentially, we have built our societies and economies on the free and sufficient flow of low cost oil and petroleum liquids. Without oil, our society would change radically as industrial production would wane and the costs for goods and services would skyrocket out of reach for all but the super rich.

Over the past several decades, we have used ever-increasing amounts of oil. Now, with developing nations joining in that consumption, our oil reserves are predicted to soon reach a point of peak production. After this peak, new discoveries are not expected to keep pace with growing demand and future production is forecast to decline bringing on rising prices and liquid fuel shortages.

Far from taking part in the doomsaying, HBW open their book stating that they “consider themselves optimistic pragmatists, not ‘Armageddonists.’” While they predict the potential for shortages and a great deal of discomfort, HBW offer up what they believe are workable solutions to help stave off the difficulties...
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associated with oil shortages. They state their belief that peak production has already arrived and that we are currently in the midst of a plateau phase that precedes the coming declines. HBW provide a refreshing view of peak oil, however, in that they don’t play the end-times games that plague so many other peak oil theorists. They recognize that the demand for energy is unlikely to diminish, so they work to provide reasonable solutions that might forestall widespread future shortages.

HBW take the time to walk the reader through the oil and energy business. They discuss oil reserves – how they are measured and where they are located around the world. They describe the make-up of the oil business, covering the relative producing power of national oil companies vs. private companies. HBW also describe how and why bringing massive recent finds – like the Bakken field in North Dakota – online are unlikely to wholly arrest the predicted declines.

HBW also introduce concepts like “Energy Returns on Energy Invested” (EROEI), showing how the deep water oil fields on which we rely today provide far less overall energy return (vs. energy expended to locate and produce the oil) compared to the energy required for previous, shallow, land-based finds. In discussing another concept – “Liquid Fuels Return on Investment” (LFROI) - they critique the production of biomass-based liquid fuels, noting that they tend to provide “expensive, low energy content … fuels” that are a poor return on our energy development investments.

Once armed with a basic knowledge of the industry, readers are taken through a slate of mitigation strategies that governments are likely to use to control the world’s burgeoning energy appetites. HBW consider taxation strategies to redirect energy use, energy rationing policies, mitigation strategies (like fuel switching), improving the fuel efficiency of automobiles, and even consider the potential of car-pooling and telecommuting to help reduce energy demands.

They also look at the potential for electrical generation to replace a portion of the liquid fuels market, determining that until far better energy storage options become available, the renewables market will be wholly incapable of providing sufficient energy.

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Although often tossed aside as extremist or the realm of conspiracy theories, the potential impacts of peaking oil production make it a topic that should be discussed and understood; the issue deserves a rational and reasonable debate.

to help address the predicted energy shortages.

They question the ability of carbon capture and storage to adequately address climate change concerns, but note that it will aid in the development of substantial liquid fuel resources through enhanced oil and natural gas recovery. Natural gas is dismissed as a replacement transport fuel without widespread government intervention in refueling infrastructure.

Similar issues with readiness of infrastructure or technologies are discussed with biomass, nuclear, solar, fusion, and other technologies. They do, however, suggest that rapidly improving the fuel efficiency of our current fleet of vehicles could go a long way to mitigating the impacts of predicted liquid fuel shortages. They also note that although it would require massive upfront investments, the imposing size of the world’s shale oil resources will almost ensure its development.

Although often tossed aside as extremist or the realm of conspiracy theories, the potential impacts of peaking oil production make it a topic that should be discussed and understood; the issue deserves a rational and reasonable debate. It is from that mindset the authors of *The Impending World Energy Mess* provide a useful resource for the reader. Their research fosters preparedness, rather than hand waving and hyperbole.

HBW provide a well-researched look at the liquid fuels resource and mitigation strategies that are likely to be employed by governments should oil production begin to wane. For those not familiar with the issue of peak oil, the book also acts as an invaluable primer. So, whether or not one agrees with the author’s predictions on the issue of peak oil, *The Impending World Energy Mess* gives readers a useful introduction and consideration of future energy options.

*The Impending World Energy Mess* is definitely a worthwhile addition to your energy library.
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Correcting Al Gore’s 24 Hours of Reality

By Tom Harris
International Climate Science Coalition

Unfortunately for Al Gore, but fortunately for the rest of us, much of what we heard in his 24 Hours of Reality extravaganza was pure fantasy.

Gore is completely wrong when he tells us that the science of climate change is settled. If his “Climate Reality Project” actually did promote climate realism, he would tell us that the science is in a period of negative discovery – the more we learn, the more we realize we do not understand about this, arguably the most complex science ever tackled. Rather than “remove the doubt,” as Gore says, we need to recognize the doubt.

Many of the ideas expressed by climate campaigners such as Gore and United Nations Secretary-General Ban Ki-moon are the consequence of a belief in what Canadian professors Chris Essex (University of Western Ontario) and Ross McKitrick (University of Guelph) call the “Doctrine of Certainty,” “a collection of now familiar assertions about climate that are to be accepted without question” (Taken by Storm, 2007).

Essex and McKitrick write:

But the Doctrine is not true. Each assertion is either manifestly false or the claim to know is false. Climate is one of the most challenging open problems in modern science. Some knowledgeable scientists believe that the climate problem can never be solved.
Yet, as long ago as 1989, Gore insisted there was “no dispute worthy of recognition” about the dangers of man-made greenhouse gas-driven climate change. Since then his certainty has solidified into dogma. But that dogma is being contested by more and more reputable scientists who are finally speaking out in an organized fashion. For example, on August 29, a blockbuster science document was published that totally refutes Gore and Ban – the Interim Report of the Nongovernmental International Panel on Climate Change (NIPCC). Coauthored by a team of scientists recruited and led by climate experts Dr. Craig Idso, Professor Robert Carter, and Professor Fred Singer, the NIPCC shows that the United Nations Intergovernmental Panel on Climate Change (IPCC) has ignored or misinterpreted much of the research that challenges the need for carbon dioxide and other greenhouse gas controls. In other words, the science
It is time to listen to reputable experts who understand that predicting, let alone controlling, climate decades from now will remain science fiction for the foreseeable future.

being relied upon by governments worldwide to create multi-billion dollar climate policies is almost certainly wrong.

Consider extreme weather, the main topic of 24 Hours of Reality. Gore promotes the concept that greenhouse gas-induced global warming is leading to increasingly severe weather. But this defies logic. If the world warms due to increasing greenhouse gas emissions, temperatures at high latitudes are forecast to rise most, reducing the difference between arctic and tropical temperatures. Since this differential drives weather, we should see weaker midlatitude cyclones in a warmer world, and so less extremes in weather, not more.

It is also a mistake to blame human activities for current weather extremes. The NIPCC concluded that “the data reveal there have not been any significant warming-induced increases in extreme weather events.” The report’s authors showed that this was the case whether the phenomenon being studied was precipitation, floods, drought, storms, hurricanes, fire, or other weather-related events.

For example, the NIPCC includes a study published this year in Geophysical Research Letters about the causes of the 2010 Russian heat wave. Researchers deduced that it “was due to internal atmospheric dynamical processes” and “it is unlikely that the warming attributable to increasing greenhouse gas concentrations contributed significantly to the magnitude of the heat wave.”

We will probably find the same when most 2011 weather events are analyzed.

Besides increasing extreme weather that people always notice, it is also important to take note of decreasing trends. For example, we are now near a 30-year low in worldwide “accumulated cyclone energy” (hurricanes in the North Atlantic), something that was not supposed to be happening if the forecasts of climate models were correct. This graph
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Tom Harris is executive director of the International Climate Science Coalition (www.climatescienceinternational.org).

shows the trend in worldwide accumulated cyclone energy.

Climate change and extreme weather have always happened and always will no matter what we do. Therefore, instead of futilely trying to stop them from occurring, we need to harden our societies to these inevitable events by burying electrical cables underground, reinforcing buildings and other infrastructure, and ensuring reliable energy sources so that we have the power to heat and cool our dwellings as needed.

Gore tells us that his program will “reveal the deniers.” If by “deniers” he means those of us who do not support his belief in an impending human-caused climate catastrophe, then we certainly hope he does reveal us. Gore and Ban alone have had many times the mainstream media coverage of all the skeptics combined. It is time to listen to reputable experts who understand that predicting, let alone controlling, climate decades from now will remain science fiction for the foreseeable future.

That may not be a comforting thought to climate crusaders, but that, Mr. Gore, is the true “climate reality.”

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