

NATIONAL COAL ADVISORY - SEPTEMBER 2013

PATHS OF LEAST RESISTANCE OFTEN LEAD ASTRAY

"If you can find a path with no obstacles, it probably doesn't lead anywhere." ~ Frank A. Clark

Among the consistent findings in many of the NCC reports prepared for the Secretary of Energy in recent vears is that of the continuing strong role of coal generation in emerging international markets and the need for global solutions to climate change issues. In the December 2009 NCC study highlighted herein on page three, the NCC recommended that "DOE play a leading role within the Administration in developing an equitable international framework to enable widespread and affordable deployment of CCS to begin within 8 to 10 years."

In its June 2007 report, "Technologies to Reduce or Capture and Store Carbon Dioxide Emissions" the NCC noted that "The U.S. must develop strategies to help developing nations adopt CCS technologies as well. By ardently pursuing the required RD&D, these technologies will advance more quickly, thus becoming more cost effective and attractive to developing nations." Technologies to Reduce CCS Report

Other organizations have also emphasized the need for expediting CCS/CCUS to achieve the global goal of limiting GHG emissions. In releasing the 2013 edition of its "Technology Roadmap: Carbon capture and storage" in July, the International Energy Agency (IEA) highlighted the value of CCS for reducing GHG emissions while allowing for the continued use of fossil fuels for power production. IEA noted that "CCS also is the only large-scale mitigation option currently available for deep cuts in emissions from industrial sectors such as cement, iron and steel, chemicals and refining." **IEA CCS** Technology Roadmap 2013

The Clean Air Task Force (CATF) also supports the advancement of CCUS technologies. In a recent interview with the World Coal Association, CATF's Chief

Representative for the Asia-Pacific region, Ming Sung commented on the value of the "opportunity to test drive a handful of CCUS technologies, like IGCC and post-combustion capture, that could play an important role in decarbonising the global energy sector." He emphasized that "Governments should accelerate everywhere the process of reducing emissions from all sources, especially coal-fired units, by hastening the development and deployment of CCUS and other low- and zero-carbon energy systems." WCA Ming Sung <u>Interview</u>

Each of these groups, including the NCC, acknowledges that the path to CCUS development and deployment is challenging. Many hurdles need to be overcome, including technical, financial, legal and public perception issues.

To some, these obstacles may seem daunting enough to encourage undertaking a seeminaly less resistant path. The World Bank's stated approach for a sustainable energy future, for example, seems to discount coal as an option in the belief that natural gas, renewable energy and energy efficiency offer the only pathways for meeting global development goals.

Others take joy in impeding the progress of coal technology developments in the short-sighted belief that coal cannot be used cleanly. Still others impose carbon pricing schemes that effectively eliminate coal use as an option.

These actions create deceptive paths of least resistance that may seem to be less onerous. But these false paths remove incentives for global solutions and lead us astray from the job at hand ~ to advance the effective, efficient and environmentally sound use of our abundant coal resources worldwide.

NCC LEADERSHIP

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NCC FALL MEETING 2013

The annual fall Full Council Meeting is scheduled for **Friday, November 1st, 2013** in Washington, DC. A reception is planned for Thursday evening, October 31st. The meeting and reception will be hosted at the **Washington Court Hotel**, located at 525 New Jersey Avenue, N.W., Washington, D.C.

We're looking forward to a great meeting. Invitations to prospective speakers from DOE, EPA, industry and the consulting community have been extended. We've please to have already confirmed a presentation by **Thomas Alley**, **Vice President Generation**, **EPRI** on the topic of **The Power System of the Future**: **Flexible Supply & Generation**. Information on other presenters is forthcoming.

In the meantime, 1'd like to thank the following folks for their support on the NCC 2013 Fall Meeting Program Development Committee:

Sy Ali, Principal, Clean Energy Consulting Debra L. Schumacher, President, Women in Mining Kathy Walker, President, Elm Street Resources Inc.

Sponsorship Opportunities

We have a number of Sponsorship Opportunities available for those wishing to enhance their visibility at the meeting and demonstrate their support for the NCC.

Reception Sponsor ~ \$5,000 Buffet Lunch Sponsor ~ \$3,000 Breakfast Sponsor ~ \$2,000 Break Sponsor ~ \$1,000

Thank you **Arch Coal** for your sponsorship commitment. If you're interested in sponsoring, please contact Janet Gellici at 202-223-1191 (office) or 602-717-5112 (cell).

Details Details

- ~ **Friday, September 6**th ~ last day to submit your travel reimbursement request to Kenni Shaw at DOE.
- \sim Monday, October 7th \sim make hotel reservations at the Washington Court Hotel.

The hotel group rate is \$239 per night for standard rooms. For reservations, please call 1-800-321-3010 or go to the hotel web link at Washington Court Hotel. Please be sure to mention the NCC when booking your reservation.

Please note that in response to government spending mandates, DOE has instituted a <u>new</u> policy for reimbursement of expenses for those attending NCC meetings. This represents a change from previous practice.

"Members of the Council serve without compensation, with a limited exception being case-by-case reimbursement in accordance with Federal travel regulations for per diem and travel expenses incurred by non-industry or not-for-profit group members while attending Council meetings."

For the 2013 fall Full Council Meeting, travel reimbursement requests MUST be submitted to Kenni Shaw at DOE by Friday, September 6th via email (KENNI.SHAW@HQ.DOE.GOV) or phone (301-903-9451). Requests received after September 6th will NOT be considered for reimbursement.

COMMUNICATIONS IS KEY

NCC Communications Committee Welcomes Input & New Members

The National Coal Council has revitalized its
Communications Committee under the leadership of
Committee Chair David F. Surber. As noted herein on page
four, the Committee recently welcomed the addition of Bill
Bissett (Kentucky Coal Association) as Vice Chair. The
Committee continues to benefit from the assistance of Jeff
Miller (Luxottica Retail ~ imiller@luxotticaretail.com) who
provides audio-video support for NCC meetings and
Andreas Heger (http://www.andreasheger.com/) who
handles our web design and management services.

We recently hosted a conference call of the NCC Communications Committee to discuss how we can enhance communications efforts to advance NCC objectives. Among the items on our wish list for implementation in the coming year:

- NCC's communications functions should be ongoing and not limited to media coverage of biannual NCC meetings.
- NCC's internal media lists should be updated.
- NCC's website should be updated and modernized.
- NCC's study findings and results should be more widely advanced.

Volunteers Sought for Communications Committee

A more fully detailed report on the revised NCC Communications Committee Plan of Work will be presented by Chair Surber at the upcoming Communications Committee meeting on Thursday, October 31st, 2013, 1-2 pm in Washington, DC. In the meantime, if you would be interested in working with the Communications Committee on these newly revived objectives, please let me know. We'd welcome your support.

Contact Janet Gellici at igellici@NCC1.org if you would like to serve on the NCC Communications Committee.



David F. Surber is a media specialist by profession as well as the producer and host (for 40 years) of the syndicated television program "Make Peace With Nature." He has been a member of The Council for 21 years, and since 1999 also serving as the first and current chair of the Communications Committee. He pronounced himself "in total agreement with the appointment of Bill Bissett as Vice Chair and also with the decision that going forward the chairmanship should change to coincide with the installation of new NCC officers." David said, "Bill is exceptionally qualified and I am happy and grateful he has agreed to serve." (www.MakePeaceWithNature.org)

NCC REPORT FOCUS ~

Low Carbon Coal: Meeting U.S. Energy, Employment & CO2
Emissions Goals with 21st Century Technologies NCC Study Link

Throughout its nearly 30 year history, the NCC has prepared more than 30 studies for the U.S. Secretary of Energy. This section of the National Coal Advisory features highlights from NCC studies of relevance to current industry and public policy issues.

I was wondering which NCC report to feature in this section of the newsletter when I received word that **Julio Friedmann** had been selected to serve as DOE's Deputy Assistant Secretary for Clean Coal. Over the course of many years, I've had the pleasure of working with DAS Friedmann in his various capacities at the Lawrence Livermore National Laboratory and, most recently, as a member of the NCC. DAS Friedmann understands the importance of coal to our nation's economic and energy security and the value of clean coal technology in advancing our environmental objectives. The NCC is looking forward to working with DAS Friedmann in his new role.

DOE's Fossil Energy ~ Clean Coal Program is tasked with developing and demonstrating advanced power generation and CCUS technologies for existing facilities and new fossil power plants. NCC's recent studies have addressed various aspects of these objectives, including NCC's **December 2009** report for the Secretary of Energy on "Low Carbon Coal" which details the challenges associated with meeting President Obama's GHG emissions reduction goals while sustaining economic and employment growth.

"I've put forward very substantial proposals to get 80 percent reductions in greenhouse gasses by 2050" ~ President-elect Obama, 2008
"Each policy we pursue is driven by a larger vision of America's future – a future where sustained economic growth creates good jobs and rising incomes" ~ President Obama, 2009

The study notes that "Both of these policy goals will take place in the context of continuing population growth as the number of people in the U.S. will increase from a current 307 million to almost 440 million by 2050. The divergent context of these changes puts the magnitude of the task before us in perspective."



The Scale of the Challenge

The NCC report identifies both long-term and near-term opportunities for reducing CO2 emissions from coal power plants through deployment of CCS technologies, retrofitting of technologies to improve the existing fleet, and employing a combination of efficiency improvements and partial CO2 capture. Timelines and costs for commercial-scale CCS deployment are included, along with an examination of legal and regulatory issues associated with CCS.

The clean coal technology opportunities addressed in the study extend beyond more traditional definitions of CCS to include an assessment of coal beneficiation technologies and the potential of underground coal gasification (UCG). The report concludes with a discussion of the importance of the deployment of clean coal technologies to other nations.

The NCC study clearly states that a portfolio of options will be needed to meet our GHG emissions reduction objectives but that without CCS we will be unable to do so.

COAL RESOURCES

Department of Energy www.doe.gov
Office of Fossil Energy

National Energy Technology Laboratory www.netl.doe.gov Coal & Power Systems

Welcome Deputy Assistant Secretary for Clean Coal ~ Dr. Julio Friedmann DOE Announcement New Fossil Energy Appointments

<u>Julio Friedmann on</u> LinkedIn

Revised DOE FE Organization Chart

Secretary Moniz Talks
Energy & Climate Policy ~
August 27, 2013
Moniz at Columbia
University

Financial Implications of Climate Change ~ Global Investor Coalition on Climate Change Global Investor Survey on Climate Change

EPRI Summer Seminar 2013 "Innovating for Flexibility" EPRI Seminar Presentations

A Potential Path to Emissions-Free Fossil Energy NETL's Chemical Looping Reactor

China: A Potential Opportunity to Consolidate the Coal Industry Consolidating China's Coal Industry

Gellici Speaking Engagements

- The Association of Edison Illuminating Companies ~ http://www.aeic.org/
 Power Generation Committee Sept. 26th ~ Baltimore
- American Coke & Coal Chemicals Institute ~ http://www.accci.org/
 2013 Annual Meeting Oct. 20th ~ Greenbrier (WV)

National Coal Council National Coal Council.org

NCC Member Focus

Bill Bissett has wasted no time fully engaging in National Coal Council activities since his appointment in 2012. He recently stepped up to the plate big time in agreeing to serve as Vice Chair of the NCC Communications Committee. Bill's media, PR and communications skills, combined with his coal industry expertise will be a home run for the NCC. Glad to have you on the team, Bill. ~ Janet Gellici

Growing up in West Virginia, Bill Bissett has a close connection to coal like most of fellow Appalachians. "You can stand on the steps of West Virginia's Capitol and see coal trucks, coal barges, and coal trains carrying our product to its destination," said Bill. For obvious reasons, the West Virginia Coal Association uses the slogan, "Coal is West Virginia" because it is true – coal truly is West Virginia. It is interconnected to the history, culture, and very way of life in the Mountain State.

After a successful career as a public communicator in West Virginia, Bill was hired as the President of the Kentucky Coal Association on February 3, 2010. "My initial perception was that coal in Kentucky is much different than it is in my native West Virginia," Bill said. "While coal is intertwined in every aspect of our lives in my home state, I found that, in Kentucky, coal is one of several signature industries. Kentucky coal has an important story to tell, but I quickly learned that it has to compete against bourbon, horseracing, and several other high-profile industries."

Well into his fourth year on the job, Bill sees progress being made, but there is definitely more work to be done. "We continue to see major progress with Kentucky's Friends of Coal campaign with more than 70,000 Friends of Coal license plates on personal vehicles across the state," Bill said. "The key now is to draw that critical connection between the production of coal, its use in the production of electricity, and the economic benefit it brings to 4.1 million Kentuckians. We also need to tell this story on a national level, as coal remains an important component in this nation's economy and national security, and remains a true building block for our future."





BILL BISSETT
PRESIDENT
KENTUCKY COAL ASSOCIATION

Bill Bissett is the President of the Kentucky Coal Association (KCA). Headquartered in Lexington, KCA includes members in Eastern and Western Kentucky, and represents both surface and underground production methods. This diversity helps the association build a consensus approach in problem solving and dealing with the complex issues facing the industry today.

Bill was previously employed as the Chief of Staff/Senior Vice President for Communications of Marshall University, located in Huntington, West Virginia. Prior to working for his Alma Mater, Bill served as Vice President of Public Relations for Charles Ryan Associates (CRA), an integrated marketing firm with offices in Charleston, WV and Richmond, VA.

During his tenure at CRA, he was instrumental in the establishment of the Friends of Coal campaign. A native of West Virginia, Bill has also served as Director of Communications for both the West Virginia Department of Agriculture and the West Virginia Department of Transportation. He also has experience in television marketing and advertising and was a columnist for The Charleston Gazette.

BBISSETT@KENTUCKYCOAL.COM



COAL CURRENTS

Todd Cunningham, Contributing Editor

A brief survey of leading coal industry stories of the past month. Highlighted underlined text links to the cited articles. Right click on highlighted text and select the "Open Hyperlink" option to view the cited article.

CLIMATE CHANGE

Key Role Seen for Environmental Policies

President Obama's environmental policies are likely to play a key role in defining his second term, The Washington Post reported. During the president's first four years, the paper said, he described climate initiatives as a means of promoting energy independence or cutting consumers' costs, while making "modest" concessions on the timing of some regulations. But this year, it added, Obama has "deputized a new team of Cabinet members to enact ... rules and policies aimed at tackling global warming." It added that the challenge for business groups that may be "next in line for carbon restrictions" is to decide whether to cooperate with the administration as it moves on climate rules for power plants ... or to try to fight it."

Public Debate on Emissions Said Unlikely

Former Clinton Administration labor secretary Robert Reich has cited the transparency of decision making on climate change as a casualty of congressional gridlock. Writing in The New York Times, Reich, now a professor at Berkeley, said that following a brief debate over cap-and-trade during the 2008 presidential race, "the two parties have been at loggerheads over the environment." While President Obama won a skirmish with lawmakers over confirmation of his choice to head the Environmental Protection Agency, Reich forecast that significant public debate over carbon emissions is not likely. "But just because the legislature has ceased to function doesn't mean the government has," he wrote. "The EPA will handle the issue through regulatory rulemaking, mostly unchecked by Congress and the public."

Scientists Confident on Climate Change ...

There is a 95 percent chance that human activities, principally the combustion of fossil fuels, have been the main cause of climate change since the 1950s, the United Nations Intergovernmental Panel on Climate Change will say in a report due out in September. This is up from just over 50 percent in 1995, Reuters said in an article datelined Oslo. But based on a leaked version of the paper, the news organization said scientists "are finding it harder than expected" to predict the impact on temperatures in specific regions in coming decades, an ability that would help planners. Reuters noted that almost 200 governments have agreed to work out an international deal by the end of 2015 to bring rising emissions under control.

... But the Public Remains Unconvinced

Despite the upcoming IPCC report, and a string of previous releases from the scientific community indicating near-consensus on the causes of climate change, the public remains unconvinced, National Journal reported in a piece titled, "Americans Don't Care What Scientists Think About Climate Science." Public confidence that climate change is real and caused by humans, "depending on whom you ask," has either plateaued or slightly declined in recent years, to 42 percent in a March Pew Research Center poll, the publication said. This is not surprising, it went on, because most people take their climate change cues not from the scientific community but from their preferred media outlets and elected officials, making their opinions "increasingly wedded to the politically fractured public debate."

For the past few years, Todd Cunningham has been authoring the policy updates section for the NCC newsletter. With this new version of The National Coal Advisory, NCC is pleased to give full acknowledgement and thanks to Todd for his contribution as author of the Coal Currents column. ~ Janet Gellici

Coal Currents (continued)

ENVIRONMENTAL REGULATION

Administration Won't Wait on Hill Action

The Obama Administration is no longer waiting for Congress to act on climate change, EPA Administrator Gina McCarthy underscored. According to The Washington Times, she said the White House instead would bypass lawmakers and utilize administrative mechanisms to pursue its goals. Speaking at the University of Colorado Boulder, McCarthy called for paying attention to what is going on in states like Colorado, where the legislature has approved a measure to double the renewable energy standard for rural communities. Opponents condemn this as a "war on rural Colorado," but McCarthy said that reductions in greenhouse gas emissions can be achieved without harming economic growth. She has dismissed charges of "a war on coal" and "a war on jobs" on similar grounds.

Moniz Offering Coal Industry an Olive Branch?

"If the Obama Administration is indeed waging a 'war on coal' ... then newly minted Energy Secretary Ernest Moniz aims to build a bridge between the opposing camps," The Washington Times reported. It said that Moniz has offered an olive branch to the coal industry, denying the existence of a "war on coal" while asserting that carbon dioxide emissions must be controlled and the technology to do so developed. Speaking at Columbia University in New York, FuelFix reported, the secretary asserted that far from being an attack on coal, the Administration's initiative "is preparing the way for coal to have potentially a place in the low-carbon world," in part by revamping an \$8 billion federal loan guarantee program to help companies reduce their carbon dioxide emissions.

A Cap-and-Trade Proposal from EPA?

Responding to President Obama's climate plan, EPA is likely to propose a cap-and-trade system to regulate existing coal-fired power plants under the Clean Air Act, an article in Power Engineering Magazine said. However, the authors suggested, other trends affecting coal-fired power plants could potentially have a greater impact than carbon pollution regulation. They include the price of natural gas, compliance with Mercury and Air Toxics Standards, and the future of the Cross-State Air Pollution Rule.

Accordingly, "there will be nominal reductions in coal capacity in the short term," they forecast. Looking ahead, full scale carbon capture and sequestration is unlikely. But despite these challenges, the *Power Engineering* article said, assuming that reasonable short-terms caps are imposed, many coal-fired plants will continue to operate.

Industry Seeking "Achievable" Standards

Coal industry lobbyists are seeking White House approval of a plan to create "achievable" carbon standards for coal-fired power plants that would allow for building new projects. According to The Hill newspaper, the lobbyists, from the American Coalition for Clean Coal Electricity, met with OMB Office of Information and Regulatory Affairs officials and EPA representatives to discuss the latter agency's upcoming emissions standards for new plants. They opposed the bar to construction of coal-fired units without Carbon Capture and Storage technology, because it is not commercially available, the Capitol Hill newspaper said. The ACCCE representatives also sought a change to an EPA draft rule on carbon emissions limits for new power plants, calling for a 2,000 pounds per megawatt hour limit, twice the current proposal.

ON CAPITOL HILL

Dingell: Clean Air Act Ineffective on GHGs

Congress's longest-serving lawmaker, Rep. John Dingell (D-MI), has written President Obama to underscore that the Clean Air Act is not an effective way to regulate greenhouse gases. Legislation aimed at specifically addressing such emissions is preferable, the former Energy and Commerce Committee chairman contended in a letter written in response to the President's recent unveiling of his climate plan. "We have before us an important opportunity to supplant and render irrelevant the ... rhetoric that has accompanied the issue of climate change up to this point," Dingell wrote, suggesting high-level meetings between energy industry representatives and congressional leaders from both parties. Despite recent Capitol Hill gridlock, he wrote, "I believe we can return to the times of compromise and sensible legislation."

ON CAPITOL HILL (continued)

Capitol Power Plant is D.C.'s Largest Emitter

Despite President Obama's commitment to substantially lower the federal government's use of fossil fuels, as part of an effort to "lead by example" on his climate change plan, the Capitol Power Plant remains the largest single of source of carbon emissions in the nation's capital. According to The New York Times, the facility, operated by Congress, provides heating and cooling for the Capitol campus. Coal now constitutes only 5% of its fuel mix, down from 56% in 2007, but diesel fuel has made up the difference; modernizing the facility to burn only natural gas would cost \$6 to \$7 million. According to The Times, the plant represents "a concrete example of the government's inability to green its own turf."

DULY NOTED

Coal Miners Receive a Stamp of Honor

The nation's <u>coal miners</u> are being honored with a <u>postage stamp</u>, one of a dozen in a series titled "Made in America: Building a Nation." In addition to the miner, the stamps' subjects include a powerhouse mechanic, a welder, riveters, a railroad track walker, an airplane maker, and others. The stamp was unveiled in Wilkes-Barre, Pa.; the photograph of the miner, whose identity is not known, was taken more than 50 years ago, and provided by the Kansas State Historical Society. As described by *The Topeka Capital-Journal*, he is depicted on his side, while working on a narrow coal seam with a hand-held pick. "Stamps ... are an expression of our values and a connection to our past," observed Labor Secretary Thomas Perez.



BY THE NUMBERS

Relaxation Recommended on Coal

Despite a near-consensus bear attitude toward coal, reason for optimism remains, according to the financial publication The Motley Fool. An article, "Why Everyone Needs to Relax about Coal," noted that due to the discrepancy between per-MMBtu prices of coal and gas, the International Energy Agency predicts a 1.2 billion ton increase in world coal demand by 2017. Even if coal prices rise, it added, new technology, such as underground coal gasification, will keep them reasonable. And while the Fool acknowledged that predicting the future is a difficult enterprise, it added that "the guarantee that coal will drop off the map makes little sense." The idea that coal plants are doomed "fails to see the more nuanced picture," it underscored. Relax **About Coal**

Second-Half Recovery for Coal Companies?

Separately, The Motley Fool pointed out that while coal consumption has been on the rise recently – 11% year-to-date, according to Peabody Energy CEO Gregory Boyce – industry shipments are down 5% as utilities are using coal stockpiles instead of purchasing new supplies. But some industry executives contend "that actually speaks of good things to come," the publication indicated. At some point, the Fool noted, utilities will need to rebuild stockpiles, and that should lead to higher coal prices, as producers have been "pretty aggressive" in cutting production. "This means producers could see a nice second-half recovery if utilities decide it's time to restock," it added. "The likely outcome would see an increase in both volumes and pricing." Coal Recovery Late 2013