A WHIRLWIND YEAR AT NCC

While it seems like just a month ago, it’s been a year since I took over as EVP & COO at the National Coal Council. It’s been a challenging and rewarding year. While there’s still much to be done, with the help and support of NCC members it’s been a very productive year. Among our accomplishments:

~ In July 2013, NCC leadership conducted a strategic visioning session in Washington, DC to refocus the efforts of the NCC going forward.
~ As part of that strategic visioning initiative, I met with over 100 NCC members and stakeholders to solicit their thoughts on the role of the NCC.
~ We recruited over 35 new members and are nearing our 125 chartered member limit.
~ We finalized and gained DOE approval of our Charter for 2014-2015.
~ We completed a timely study for Secretary Moniz assessing the value of the existing coal fleet and opportunities to enhance the fleet’s capacity, efficiency, flexibility and emissions profile.
~ We hosted a first-time event in cooperation with the Catholic University of America’s Institute for Policy Research & Catholic Studies. The CTX (Coal-to-X)/Coal Conversion Forum attracted attendees from industry, academic, government agency and public policy sectors.
~ We hosted a special celebration in honor of NCC’s 30th Anniversary at the Sequoia Restaurant on the banks of the Potomac River.
~ Our Spring 2014 membership meeting was among our best attended. Our conference coordinator noted it was the highest hotel block she’d booked in the 14 years she’s been with the NCC.
~ We reinvigorated the NCC’s Communications Committee aided by David Surber (Environmental TV Journalist) and Bill Bissetti (Kentucky Coal Association).
~ We produced an informative video on the history and objectives of the NCC with the fine video talents of NCC Jeff Miller (Luxotica).
~ We revised the NCC newsletter to enhance its information value for our members.
~ We reinstated posting of the NCC members’ roster on the NCC website.
~ We posted (nearly) all of the NCC’s studies 1986-2014 on the NCC website.
~ We updated the NCC Bylaws to comply with FACA requirements.

What’s ahead?
~ We’ve already launched our next study on CCS/CCUS RD&D.
~ We’re starting on the redesign of our website.
~ We’re developing an NCC member and stakeholder database.
~ We’re promoting our Existing Coal Fleet study.
~ We’re planning for our Fall 2014 membership meeting. Hope to see you there!

HOLD THE DATES!
NCC FALL 2014 MEMBERSHIP MEETING
October 15-16
DC Waterfront

Details to follow soon!

NATIONAL COAL ADVISORY – JUNE 2014

NCC LEADERSHIP

Jeff Wallace, NCC Chair
Vice President, Southern Coal

Mike Durham, NCC Vice Chair
President & CEO
Advanced Emissions Solutions

Fred Palmer, Coal Policy Chair
Senior VP, Peabody Energy

Bill Brownell, Esquire
Vice Chair Coal Policy
Chair, Hunton & Williams

Executive Committee
Joe Hopfi
VP Wholesale Origination
PPL Energy Plus

CH2M Hill

Chris Jenkins, VP Coal & Auto
CSX Transportation

Holly Krutka, Executive Editor
Shenhua Science & Technology Research Institute

John Long, COO,
Connemara Ltd.

Rich Lopriore, President
PSEG Fossil LLC

Mike Sorensen, Sr. Mgr. Fuel
Tri-State G&T

Kathy Walker, President
Elm Street Resources

Ex Officio
Joe Craft, Ill, President
Alliance Coal

John Eaves, NCC Chair
President & CEO, Arch Coal

Mike Mueller
VP Energy Mgt. & Trading
Ameren Missouri

Georgia Nelson, CEO
PTI Resources LLC
Finance

CHAIR ~ Gregory Workman
Director Fuels
Dominion Resources

Robert Bibb, PE
Bibb Engineers, Architects

Paul Gatzemeier, CBCC

Kathy Walton, Principal
The Basic Industries Group

Communications

CHAIR ~ Bill Bissetti
Kentucky Coal Association

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Legal Counsel ~ Hunton & Williams

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Washington, DC 20036
(202) 223-1191
MAKE THE MOST OF YOUR APPOINTMENT ~ ENGAGE IN NCC

It’s an honor and privilege to be appointed to serve on the National Coal Council. In accepting an appointment to the NCC, we ask that you contribute financially as well as with your time and effort to the activities of the Council in support of its objectives. You can honor your commitment to the NCC in two ways:

- Pay your 2014 member contribution/dues if you haven’t already done so.
- Serve on an NCC committee.

Coal Policy Committee ~ _____ SIGN ME UP!
The Coal Policy Committee’s primary function is to prepare draft reports on issues requested by the Secretary of Energy for review by the full NCC membership prior to submission to the Secretary. The CPC also consider issues and subjects for review by the Secretary as possible NCC study topics.

NEW NCC STUDY GETTING UNDERWAY

NCC Study Technical Work Group/Study Review Team ~ _____ SIGN ME UP!
The NCC is embarking on its next study for the Secretary of Energy which will address the questions: What is the industry’s assessment of the progress made by the DOE and others regarding cost, safety and technical operation of CCS/CCUS? How does industry see and accept major technical findings from the CCS/CCUS community and how do those relate to DOE programs and investments? Work on this study will be starting immediately so sign up today!

NCC Communications Committee ~ _____ SIGN ME UP!
The Communications Committee is responsible for increasing public awareness of the existence, goals and work of the NCC; for more widely disseminating NCC’s reports and studies; for enhancing the visibility and media coverage of NCC meetings.

NCC Program Development Committees
The NCC hosts two membership meetings each year ~ Spring and Fall ~ featuring presentations from government, industry, academic, legal and consulting community representatives. NCC members are invited to participate in one or both of the following Program Development Committees to assist in developing the meeting program and identifying and securing speakers:

_____ SIGN ME UP! ~ Fall NCC Meeting ~ October 2014
_____ SIGN ME UP! ~ Spring NCC Meeting ~ Spring 2015

NCC Membership Nominating Committee ~ _____ SIGN ME UP!
The Membership Nominating Committee is tasked with identifying prospective candidates for appointment by the Secretary of Energy to the NCC.

Name: ____________________________________________
Title: ____________________________________________
Company: _________________________________________
Telephone: ________________________________________
E-mail: __________________________________________

Return to National Coal Council
1730 M Street NW, Ste. 907 ~ Washington, DC 20036
FAX: 202-223-9031 EMAIL: info@NCC1.org
WHO KNEW?*

Based in Salt Lake City, the University of Utah’s Institute for Clean and Secure Energy (ICSE) provides education through interdisciplinary research on high-temperature fuel-utilization processes for energy generation, and associated health, environmental, policy and performance issues.

ICSE combines hands-on experimental work with analytical tools and simulation. This approach enables ICSE to develop predictive tools for these highly complex processes, which span multiple scales of time and space. ICSE has the resources and expertise to address and improve the understanding of these processes, which are often associated with applied systems and industrial applications.

ICSE’s Industrial Combustion and Gasification Research Facility (ICGRF) houses pilot-scale reactors, control systems and gas and aerosol analyzers. Its numerous combustion and gasification test facilities range up to 1.5 MW (5.1 MM Btu/hr).

ICGRF Capabilities

The facility includes the following equipment and utilities:

- 1600 amps of 480 volt 3-phase power
- Natural gas up to 100 kPa (15 psi)
- Compressed air throughout facility
- Closed cooling water/cooling tower system
- Integrated OPTO-22 based distributed control systems backbone
- 7.5 and 10-ton overhead cranes
- Gas analyzers for both combustion product gas and gasification synthesis gas
- 6000 gallon liquid oxygen (99.9% pure) storage and delivery system
- 3500 lb/hr bowl mill coal pulverization facility

For additional information:
Dr. Andrew R. Fry, Director, ICGRF
801-587-181, andrew.fry@utah.edu

* A regularly featured column on industry, university and government initiatives in support of clean coal technology development & commercialization.

NCC FINALIZES

“THE VALUE OF OUR EXISTING COAL FLEET” STUDY

The final, edited version of the NCC study approved by members in May 2014 is now up in final form on the NCC website ~ http://www.nationalcoalcouncil.org/NEWS/NCCValueExistingCoalFleet.pdf.

“Reliable & Resilient: The Value of Our Existing Coal Fleet” has been proofed, edited and bookmarked for easy navigation thanks to the efforts of newly appointed NCC member Lisa Bradley, Vice President and Senior Toxicologist with AECOM. Thank you Lisa and the AECOM team for your efforts.

We are in the process of getting the report printed for distribution to DOE officials, NCC members, Congressional representatives and coal stakeholders. We’ll be including an extensive list of folks to thank for their efforts in preparing the study but in advance of that publication, I’d like to acknowledge the tremendous efforts of the following individuals. THANK YOU ONE & ALL!

- Steve Wilson, Southern Company ~ Technical Work Group Chair
- Doug Carter, Independent Energy Consultant ~ Lead Author
- J. Edward Cichanowicz, Independent Engineering Consultant ~ Principal Author
- Stu Dalton, EPRI ~ Principal Author
- Don Gaston, PSEG Fossil ~ Study Leadership Team
- Matt Usher, American Electric Power ~ Study Leadership Team
- Mark Wilson, Tri-State Generation & Transmission ~ Study Leadership Team
- Jeff Wallace, Southern Company ~ Study Chair
- Fred Palmer, Peabody Energy ~ Coal Policy Committee Chair
- Bill Brownell, Hunton & Williams ~ Coal Policy Committee Vice Chair
- John Eaves, Arch Coal ~ NCC Chair (May 2012-May 2014)
NCC MEMBER FOCUS

The NCC extends a warm welcome to just-appointed member Jim Butz who has been patiently waiting for nearly a year now to join the Council. He’s not sat by idly waiting for his appointment but has been attending NCC meetings since fall 2013 and keeping in touch with NCC leadership in anticipation of serving on the NCC and being able to hit the ground running. On your mark, get set, go Jim! We look forward to working with you.

James (Jim) Butz is Vice President of Product Management for Novinda Corporation where he is responsible for directing product development as well as participating in the performance of numerous full-scale trials of Amended Silicates. Jim is also directing the company’s laboratory and pilot-scale projects to expand the science and technology behind Amended Silicates, working with R&D groups in industry and academia.

Prior to joining Novinda, Jim was a consultant to the technical team at ASI/Novinda, working to commercialize a novel reagent that was patented by ADA for the capture of mercury from coal-fired flue gas in power plants. He served as Principal Investigator on the ASI project’s 30-day trial of mercury control at Cinergy’s Miami Fort Station Unit 6, which was co-funded via a cooperative agreement from DOE’s National Energy Technology Laboratory.

While Vice President of Operations and Chief Research Engineer at ADA Technologies, Inc., Jim managed research and development projects focusing on the commercialization of maturing pollution control technologies and specialized instrumentation. As head of ADA’s mercury business, Jim completed over 25 projects for the development and commercialization of technologies that remove mercury from liquid, solid and gas-phase waste streams. He led several projects to develop ADA’s patented Amended Silicates sorbent material, helping to establish Amended Silicates, Inc., a joint venture with CH2M Hill to commercialize this technology. The latter company subsequently became Novinda Corporation.

Jim has also directed pilot testing of pulse-jet baghouse technology for EPRI-funded projects at multiple coal-fired power plants. He managed several field projects at utility and industrial plants and prepared a wide variety of reports and technical papers during his 25 years of service with ADA Technologies.

Having spent most of his career in research and development for both private industry and a non-profit affiliate of a major university, Jim has acquired extensive experience in the technical and administrative management of R&D projects while directing contract work for government and private clients.

Jim is a member of the American Society of Mechanical Engineers and Sigma Xi. He earned his B.S. in Mechanical Engineering from Northwestern University.

JAMES BUTZ
VICE PRESIDENT OF PRODUCT MANAGEMENT
NOVINDA CORPORATION

Novinda Corporation is an advanced air quality technology company providing essential products and services that optimize operations and ensure environmental compliance for the operators of coal-fired power plants, industrial boilers and cement kilns. The company is principally known for its non-carbon mercury capture reagent, Amended Silicates™, a mineral-based product that removes mercury from combustion gasses via chemical reaction. The product facilitates utility compliance with EPA’s Mercury & Air Toxics Standards (MATS), in an economic and environmentally advantageous manner.

Novinda was recognized for its Amended Silicates® HgX product when it won the 2014 Gold Edison Award™ for Processing Materials. The Edison Awards™ recognize and honor innovative new products, services and business leaders in America, and symbolizes the persistence and excellence personified by Thomas Edison.
LEADING NEWS

EPA Proposal Seeks 30% Cut in CO2 Emissions from Existing Coal Plants

The Environmental Protection Agency (EPA) has proposed its long-awaited regulations for carbon dioxide (CO₂) emissions from existing coal-fired power plants, calling for cuts of up to 30%, compared with 2005 levels, by 2030. The Agency says that represents an annual decrease of 500 million metric tons of the greenhouse gas.

According to The New York Times, in combination with other regulations, EPA’s issuance would allow the U.S. to meet its commitment to the United Nations to cut carbon pollution 17% below 2005 levels by 2020 and encourage other major polluting countries, such as China and India, to follow similar courses.

According to the agency, the 645-page Clean Power Plan proposal will be implemented through a state-federal partnership, with states identifying a course of action using current or new electricity production and pollution control policies to meet program goals. “States can choose the right mix of generation using diverse fuels, energy efficiency and demand side management to meet the goals and their own needs,” EPA said.

The Washington Post suggested that the rule’s impact may be less than advocates and opponents contend. Due in part to the economic slowdown, as well as to fuel switching, “Emissions have fallen so fast since 2005 that the country is already halfway to its goal,” the newspaper indicated.

This is a source of concern for environmentalists, Politico noted. Green groups lobbied the Administration for cuts relative to a more recent baseline year, when emissions were lower than in 2005, “because that would represent a greater total reduction.”

EPA estimates that under the regulation, 30% of U.S. electricity will come from coal in 2030, down from today’s approximately 40%.

In the regulatory analysis accompanying the proposed rule, the agency said that, “Relative to the base case, about 30 to 49 GW of coal-fired capacity is projected to be uneconomic to maintain (about 12% to 19% of all coal-fired capacity projected to be in service in the base case) by 2020 under the range of scenarios noted.”

The analysis also forecast that under the new rules the U.S. would still burn between 616 million and 636 million tons of coal for power in 2020, compared with 844 million without the regulations, a reduction of 25% to 27%.

The emissions reduction initiative contains a flexible timeline for the states to follow. Plans are due in June 2016, with an option to use a two-step process for submitting final plans if more time is needed.

EPA will accept public comments for 120 days (following publication of the proposed regulation in the Federal Register) and release a final rule in June 2015. According to Bloomberg, EPA Administrator Gina McCarthy said she expects “significant” revisions in the state emissions goals before a final rule is issued next year.
Coal Currents (continued)

CLIMATE CHANGE
EPA’s Emissions Proposal Faces Two Impediments: APPA

The Environmental Protection Agency’s (EPA) proposal for reducing carbon dioxide (CO₂) emissions from existing power plants will face two significant impediments, according to a paper prepared for the American Public Power Association (APPA). First, APPA said, limitations to EPA’s statutory authority prevent it from considering options, such as a carbon tax, that economists consider the most efficient. Second, “and more vexing,” are the complex and varying electricity market structures throughout the country. Markets may be stressed by the need to maintain reliability while shifting to a lower emissions portfolio, the paper cautioned. To address this, states must be given a high degree of flexibility to achieve reductions within their specific regulatory and market structures. Emissions reductions will be more difficult and costly, it underscored, “in the absence of much-needed electric market reform.” The paper, “Markets Matter: Expect a Bumpy Ride on the Road to Reduced CO₂ Emissions,” was prepared for APPA by Navigant Consulting in advance of the proposal’s release.

Australia’s Shift on Climate Seen as Setback to Global Efforts

Australia’s prime minister has vowed to replace the country’s carbon emissions permits, the world’s most costly, with an alternative consisting mainly of taxpayer-funded grants to companies and projects that reduce emissions, Bloomberg reported. It indicated that environmentalists see the prospective shift by the industrialized world’s highest per-capita fossil fuel emissions emitter, ahead of United Nations climate talks slated later this year, as a setback to international efforts to address global warming. Negotiations are aimed at concluding a first-ever agreement to limit emissions in industrialized and developing nations alike in 2015. However, Bloomberg noted, “China and India have signaled their reluctance to join without broad participation from richer industrialized nations, including Australia.” It added that some prominent members of Australia’s business community are urging the prime minister to “stay the course on tough greenhouse gas emission standards.”

ENVIRONMENTAL REGULATION
EPA Continues Streak of Court Successes in Air Quality Cases

The EPA has tallied at least its sixth court victory this year in air-quality cases, turning back environmentalists’ challenges to the delay of new acid rain rules. According to Bloomberg, the U.S. Court of Appeals in Washington accepted the agency’s argument that drafting such rules involves complexities requiring additional study. Green groups challenged EPA’s 2012 decision that it needed more time to craft new standards for nitrogen oxide (NOx) and sulfur dioxide (SO₂) emissions that contribute to acid rain. The greens argued that EPA had enough information to set a new standard; however, the court deferred to the agency’s judgment. It previously upheld EPA decisions regarding pollution from coal mines, power plant mercury emissions, particulate matter emissions and carbon monoxide standards, as well as its “good neighbor” rule requiring states to cut emissions that contribute to pollution across their borders, Bloomberg reported.

Opinions Differ on EPA Regs’ Implications for Grid Reliability

Concerns that the Environmental Protection Agency’s proposed carbon dioxide emissions requirements will harm grid reliability are inaccurate, a new report says, “because states are in the driver seat [and] EPA must work with them to reduce emissions.” The report, from the Analysis Group, acknowledges concerns that grid reliability could be compromised by coal-fired power plant retirements stemming from the rule. However, The Daily Caller noted that the report’s author, Susan Tierney, previously a Department of Energy (DOE) official, has said that new environmental rules have not affected grid reliability to date, “in large part because the industry has proven itself capable of responding effectively.” But the publication added that the director of the Electric Reliability Coordinating Council told E&E News that this was “wishful thinking” in light of the proposal’s scope and depth. He suggested that any coordination among EPA, DOE’s Office of Reliability and the Federal Energy Regulatory Commission (FERC) had been undertaken “completely invisibly.”

Todd H. Cunningham, who writes the “Coal Currents” column for the Council’s monthly National Coal Advisory, is available for additional writing projects involving coal and other energy policy issues. For information on Todd’s background and experience, see his LinkedIn profile at www.linkedin.com. To discuss your editorial needs, contact Todd via email at tcunningham03@comcast.net.
Coal Currents (continued)

ENERGY ISSUES

Coal Plant Shutdowns, Retrofits Likely to Boost Power Prices

Electricity prices likely will rise across much of the country as coal-fired power plants shut down in response to environmental regulations and economic forces, the Associated Press (AP) reported. The closures of dozens of plants across 20 states during the next three years – and the expensive retrofits required by many that remain in operation – will contribute to what the DOE predicts will be a 4% average increase in retail power prices this year. By 2020, prices are expected to rise an additional 13%, not including the cost of the prospective environmental rules, AP added. The article noted that with coal serving as the "workhorse" of the U.S. power system, the Administration, state governments and industry are struggling to balance the need for a cleaner environment with grid reliability and price concerns.

Time: Coal's Continuing Global Role Demands Efforts on Carbon

"The grid of tomorrow won't look at all like the grid of today – except that it will almost certainly still include coal," a recent article in Time observed. It noted that despite rapid growth in renewable power, the International Energy Agency (IEA) reports that the global increase in coal-fired generation has been larger than that of all non-fossil fuel sources combined. Most electricity demand growth in coming years will be in developing nations, with coal "almost certainly a big part of it." IEA has reported that if global temperature increases are to be held to 3.6 degrees F, the CO₂ emissions per unit of electricity must be cut by 90% by 2050. However, Time added, carbon capture and sequestration (CCS) has been stalled by technological challenges and high costs. "Unless we spend more time developing carbon-free coal technologies," it underscored, "there's little hope of holding back global temperature increases."

MINING & TRANSPORTATION

Winter is Over, But Rail Congestion Continues in Powder River Basin

While demand for coal from Wyoming's Powder River Basin (PRB) is on the rise, rail congestion has snarled coal shipments, a situation expected to continue into the latter half of the year, the Casper Star-Tribune reported. The publication attributed the situation, which has dragged down mining firms' profits and prevented them from capitalizing on low coal inventories, to "a perfect storm, in a literal sense and a figurative one": winter weather delayed shipments from the Basin, producing a backlog of orders, while rail car demand rose due to a shorter grain harvest and rising oil production. Problems were "particularly acute" for mines along Burlington Northern Santa Fe's northern route out of the Basin," the article specified. The railroad is taking "aggressive short-term action" to remedy the situation, a BNSF spokesman said; however, an industry analyst indicated it will take time – perhaps until year's end – to alleviate service constraints.

INTERNATIONAL INTEREST

Coal's Domestic Challenges Help Brighten Picture for U.S. Exports

Domestic challenges facing thermal coal have contributed to lower prices around the world – recently less than $75 per ton, versus nearly $200 in 2008, TopStock Analysts reported – that the company says has set off a global "chain reaction." Some of the excess coal that has contributed to lower prices is coming from this country, it specified, with 2014 U.S. coal exports expected to exceed 100 million tons for a record third consecutive year. Meanwhile, natural gas-fired power plants accounting for almost one-third of Europe's capacity are at risk as utilities opt to utilize cheaper coal, Bloomberg reported. However, coal's rebound on the continent is "unlikely to last," due to EU air quality rules, Bloomberg added, leaving Europe at risk for losing a third of its gas and coal power capacity. "The current situation has the potential to unfold into a major structural crisis," it cautioned.
Coal Currents (continued)

BY THE NUMBERS

EIA’s Energy Outlook Sees Range of Possibilities in Coal’s Future

The Energy Information Administration’s (EIA) Annual Energy Outlook 2014 includes a range of futures for U.S. coal production “from outright disaster (in the case of an economy-wide carbon price) to the decidedly positive (in case of high gas prices),” World Coal reported. “There is not too much for the U.S. coal industry to get excited about in AEO2014,” it concluded. EIA, the Energy Department’s statistical unit, generally supports the idea of a gradual decline, World Coal noted, and the “fall off a cliff” scenarios “would require concerted political action from Congress (e.g. to introduce a carbon price) and that seems unlikely any time soon.” Separately, EIA reported that in 2012, China accounted for 46% of global coal production and 49% of global coal consumption, “almost as much as the rest of the world combined.” The U.S. was second in both categories, with a 12% share of global coal production and 11% of global consumption.

DULY NOTED

Stanford’s Divestment of Mining Stocks Draws Criticism

Stanford University, under pressure from environmental activists, recently announced that it would sell its $18.7 billion endowment’s stock in coal mining companies, The New Republic noted. While this was “a noteworthy shot in the cultural wars over climate change,” TNR pointed out, it was narrowly focused on mining companies, not on utilities or other coal-burning companies. An opinion column in The Stanford Daily criticized the action for focusing on the fuel rather than emissions. Instead of divesting from coal, it asked, why not invest in new CCS companies? The column also asked whether if “by declaring coal a bad fuel not worthy of investment ... are we declaring CCS research dead? ... are we telling [certain states] that they should not power their hospitals because the majority of that power comes from burning coal?” “There is a long list of options to address climate change,” the column concluded, “and divestment from coal mining is at the bottom.”