DOE PRESENTER CONFIRMED FOR NCC MEETING

The National Coal Council (NCC) is pleased to announce that Judi Greenwald, Deputy Director for Climate, Environment & Energy Efficiency at the U.S. Department of Energy’s Office of Energy Policy & Systems Analysis (EPSA) will be keynoting the NCC Full Council Meeting on Thursday, October 16th at 9 am. Ms. Greenwald has more than 30 years of experience working on energy and environmental policy, including positions with the Center for Climate and Energy Solutions (http://www.c2es.org/) and the National Enhanced Oil Recovery Initiative (http://neori.org/).

Joining Ms. Greenwald during the keynote session will be:
- Kimberly Greene, Chief Operating Officer, Southern Company
- David Boyd, Commissioner & Vice Chair Minnesota Public Utility Commission & Chair NARUC Committee on Electricity ~ National Association of Regulatory Utility Commissioners (NARUC)

Following our keynote session, we’ll hear from:
- Julien Dumoulin-Smith, Executive Director /Equity Research Electric Utilities & IPPs
- UBS Securities LLC
  “A Financial Industry Analyst Perspective on the Utility Industry”
- Ken Medlock, Energy Resource & Economics Fellow
- Rice University - Baker Institute for Public Policy

Thank you to NCC members Jerry Oliver and Jackie Bird for their assistance on the Program Development Committee!

On-Line Registration Still Open! NCC members, meeting guests and media can still register for the Fall 2014 meeting on-line at NCC Fall 2014 Registration (https://www.etouches.com/ereg/index.php?eventid=99704&).

NCC Fall 2014 Meeting at a Glance
Wednesday, October 15th ~ Welcoming Reception
6-8 pm in the Gaylord National Resort Lower Atrium

Thursday, October 16th ~ Full Council Meeting
8-9 am Continental Breakfast
9-10:45 am Welcoming Remarks & Keynote Session
11:15 am-12:30 pm Presentations & NCC Business Session
12:30-1:30 pm Networking Lunch

Logistics
The Gaylord Resort is located at 201 Waterfront Street, National Harbor, Maryland 20745 ~ just 8 miles from National Airport. For details on room reservations or travel (including local transportation options), please contact NCC Members & Meetings Manager Hiranthie Stanford at 202-765-4349 or hstanford@NCC1.org.
COAL RESOURCES

- Department of Energy [www.doe.gov]
- Office of Fossil Energy
- National Energy Technology Laboratory [www.netl.doe.gov]
- Coal & Power Systems
- EIA Coal Data Browser [www.eia.gov/coal/data/browser]
- EIA Launches Flickr Page & Other Data Tools [EIA Flickr]
- Changes at Alabama Power Plant Driven by Federal Regulations
- Australian Carbon Tax Repealed
- Advanced Energy for Life
- Alpha Natural Resources’ Running Right Safety Program
- World Coal Association Case Study
- Residential Electricity Prices Rising
- EIA Data September 2014
- Gasification Can Help Meet the World’s Growing Demand for Cleaner Energy
- World Coal Association Magazine Autumn 2014 ~ Featuring an article by Janet Gellici on the NCC’s Existing Coal Fleet Study (see pg. 40)

Gellici Speaking Engagements

- Pittsburgh Coal Conference Pittsburgh ~ October 7
- Power Experts Conference Atlanta ~ November 5
- American Coal Ash Association
- Savannah - February 10

National Coal Council [NationalCoalCouncil.org]

NATIONAL COAL ADVISORY

CCS/CCUS PROGRESS

NCC STUDY SURVEY UNDERWAY

In response to Energy Secretary Moniz’s request that the NCC provide an industry assessment of the progress made by DOE and others regarding the cost, safety and technical operation of CCS/CCUS, the Council is undertaking a survey of its members and industry associates. The survey was launched on September 26th and responses are due by October 10th.

The survey provides an opportunity for those who have received financial or technical assistance from DOE related to a carbon management project to anonymously assess the value of their experience. Respondents are invited to provide their assessment of DOE programs in support of various CCS-CCUS initiatives, ranging from combustion, gasification and capture technology to efficiency gains, storage options, safety and cost.

The survey also allows respondents to list critical impediments to CCS-CCUS deployment.

If you have not received an email invitation to participate in the survey and would like to contribute your responses, please email Janet Gellici at jgellici@NCC1.org no later than Thursday, October 9th.

WHO KNEW?*

The Carbon Capture Simulation Initiative (CCSI) is a partnership among national laboratories, industry and academic institutions that, over a five-year period (FY11-FY15), is tasked with developing and deploying state-of-the-art computational modeling and simulation tools. The CCSI Toolset is intended to be used to accelerate the commercialization of carbon capture technologies in power plants from discovery to development, demonstration and ultimately the widespread deployment to hundreds of power plants.

The latest generation of the CCSI Toolset was released on October 31st, 2013. It includes 12 new products and significant updates to 11 previously released products. To-date, five companies are licensing the tools and other companies are reported to be actively negotiating licenses. The final release of the completed Toolset is planned for January 2016.

NETL leads this initiative with support from industrial partners including NCC members ADA, ALSTOM, Ameren, Babcock & Wilcox, EPRI and Southern Company. Participating labs include Berkeley, Lawrence Livermore, Los Alamos and Pacific Northwest. Academic participants include NCC members Virginia Tech, Princeton University and West Virginia University.

David Miller ~ CCSI Technical Team Lead
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CCSI NETL

*A regularly featured column on industry, university and government initiatives in support of clean coal technology development & commercialization.
Challenges to the Existing Coal Fleet

The existing coal fleet will face a number of serious challenges over the next few years. Electricity demand has declined due to a combination of a slower growing economy, greater deployment of demand-side energy efficiency measures and a continuing shift from manufacturing to less energy intensive services. This low rate of growth emphasizes the importance of advancing policies and technologies that preserve the benefits offered by the existing coal fleet.

Additional challenges to existing coal generation include recent low-priced natural gas. However, natural gas prices have a long history of price volatility and EIA projects gas prices will increase 3%/year (2012-2040) vs. a 1%/year increase for coal.

New and prospective environmental regulations will reduce operating flexibility and require implementation of costly compliance strategies. As a result, U.S. coal-based electricity may decrease between 35-98% by 2040 (compared to 2010).

As presently employed, New Source Review (NSR) regulations are a powerful disincentive for power plant owners to make efficiency improvements to their plants. NSR has resulted in some efficiency improvement project cancellations, the antithesis of EPA’s goal of greater pollution control. Current NSR rules result in higher national emissions and continued degradation of efficiency within the existing fleet.

While there is no fixed endpoint for the useful life of a coal power plant, large capital investments generally are not economically viable on significantly older units.

Finally, federal funding for coal RD&D has significantly decreased in recent years. The Administration’s FY2015 R&D funding request represents a decrease of approximately 64% compared to average appropriations for the past 11 years. No demonstration project funding has been appropriated since 2009.

**NCC Recommendation** - DOE should work with EPA to eliminate NSR-related barriers that disincentivize generators to pursue efficiency improvements that would otherwise reduce emissions, increase capacity and enhance plant operations. DOE should seek input from industry associations, such as EPRI and the Coal Utilization Research Council (CURC) regarding priority research needs and the appropriate balance between RD&D of technologies relevant to the existing coal fleet.

A series of 7 fact sheets and a PowerPoint graphics deck (complete with explanatory notes) from the NCC study is available on the NCC website at www.nationalcoalcouncil.org under the “Information/Reports” tab.
As Director of Sargent & Lundy’s Fossil Power Technologies Group, Jack Daly oversees more than 730 professionals dedicated to providing high-quality fossil-fueled electric power generation services, including new generation, repowering, regulatory compliance initiatives, and backfit and betterment of operating plants.

Jack joined S&L in 1978 as a structural engineer, rising steadily through the project management ranks to his current position. His early project work encompassed structural engineering for an array of power generating technologies ~ coal, natural gas, oil, cogeneration, resource recovery and nuclear.

Later, as a senior-level engineer with S&L, Jack served as project director on diverse assignments, overseeing the efforts of consultants, project managers, project engineers and technical support personnel. These projects included development of new units and retrofits of existing units across the U.S.

The list of companies Jack has worked with through S&L reads like a who’s who of the power industry, including Arkansas Power & Light, Basin Electric, Constellation Power, Dairyland Power, Detroit Edison, Huaneng International Power (China), Illinois Power, Los Angeles Dept. of Water & Power, LS Power, Northern Indiana Public Service, Omaha Public Power District, PacifiCorp and Tampa Electric, among others.

Among his most notable accomplishments is his recent project leadership at the Dry Fork Station (Basin Electric Power Cooperative). This greenfield 420-MW advanced-generation, coal-fired unit located in Gillette, Wyoming, entered commercial operation in 2011. Under Jack’s direction, S&L performed the complete detailed design, procurement and construction management services. The mine-mouth project uses low-sulfur Powder River Basin coal and had to meet stringent environmental standards, with all air emissions minimized through state-of-the-art quality technologies and controls.

In 2008, Dry Fork Station earned first place in the Bentley Awards of Excellence Competition for “innovation in power generation project design,” based on the effectiveness of the 3-D design model, comprising more than 2,000 files, in facilitating design optimization and constructability to reduce total project costs and ongoing O&M costs. In 2012, the facility was named the “Best Industrial Project” in Engineering News-Record’s Mountain State competition.

Jack earned his B.S. in Civil Engineering from the Illinois Institute of Technology. He is a registered Structural Engineer in the State of Illinois and a registered Professional Engineer in Michigan, North Dakota, Ohio, Texas, Wisconsin and Wyoming.

With his vast range of expertise and experience, we’re very fortunate indeed to include Jack among our NCC members.

We’re pleased this month to feature a new representative from a long-time supporter of the NCC ~ Jack Daly with Sargent & Lundy.

Jack’s project management expertise is wide-ranging, encompassing construction and engineering management, fossil-fueled new generation and plant modifications, and international and domestic plant design and equipment procurement.

Welcome aboard Jack!
Coal Currents
Todd H. Cunningham, Contributing Editor

CLIMATE CHANGE

White House May Try to End-Run Senate Ratification on Climate Pact

Given slim prospects for Senate ratification of a climate change treaty, the Obama Administration is considering crafting on international agreement not requiring such endorsement to become effective, according to The New York Times. "President Obama's climate negotiators are devising what they call a 'politically binding' deal that would 'name and shame' countries into cutting their emissions," The Times indicated. The accord, which the newspaper described as "blend[ing] legally binding conditions from an existing 1992 treaty with new voluntary pledges," would be signed at a 2015 UN summit in Paris. It would update the treaty and therefore not require a new ratification vote, the publication added. National Journal's Energy Edge reported the White House labeled such talk premature; although Press Secretary Josh Earnest did not reject the notion, he suggested that "It is not clear exactly what sort of role Congress would be required to play" under the agreement. Energy Edge said some lawmakers, Republicans and Democrats alike, saw the report as additional evidence of the White House's intention "to move unilaterally on climate change."

Draft UN Report Warns of "Runaway Growth" in Greenhouse Emissions

A UN official urged health ministers attending a World Health Organization (WHO) conference to join their environmental counterparts in supporting a climate agreement. Christiana Figueres, executive secretary of the UN Framework Convention on Climate Change, said that such change is "an accelerating phenomenon ... that threatens to impose much more severe and widespread health effects." Meanwhile, The New York Times indicated that the draft of a new UN report warned that "runaway growth in the emission of greenhouse gases is swamping all political efforts to deal with the problem." The document, to be finalized and released in November, was drafted by the Intergovernmental Panel on Climate Change (IPCC). It said global greenhouse gas emissions accelerated from 2000 to 2010 and this rise seems to be continuing; while emissions are falling in nearly all Western countries, these declines are insufficient to offset increases in developing nations. While past emissions have made large-scale climatic shifts inevitable, the report indicated, lowering future emissions would slow the pace of change, "providing critical decades for society and the natural world to adapt.

FERC Chair: No Need to Advise EPA on Reliability Aspects of Emissions Rule

Federal Energy Regulatory Commission (FERC) Chairwoman Cheryl LaFleur indicated that the process by which her agency ensures grid reliability remains on track as EPA's proposal for reducing carbon dioxide (CO2) emissions from coal-fired power plants proceeds. Speaking with E&E News, LaFleur noted that FERC is an energy economic regulator, while EPA "clearly has the authority ... to make environmental rules." Accordingly, the Commission does not need to take a more active role in advising EPA, LaFleur said. She also told E&E that it is premature for FERC to project how the U.S. regional energy resource mix could change in the wake of EPA's actions. However, she indicated, FERC might need to study how competitive markets deploy resources if states change this mix after applying EPA's "building blocks" (considering states' ability to improve heat rates at coal-fired plants; shifting base load away from coal and toward existing natural gas units; and increasing zero-carbon electricity and energy efficiency) to set their standards. Meanwhile, Commissioner Philip Moeller has said he will seek a formal FERC role concerning the reliability implications of EPA's proposal.
Wyoming Governor, Coal Executive Note Legal "Pushback" on EPA’s GHG Bid

EPA’s proposal for reducing carbon dioxide (CO₂) emissions from coal-fired power plants is defective from a policy perspective, ignoring the fuel’s technological strides and attempting to artificially remove it from the market, according to Wyoming Gov. Matt Mead. Rather, Mead said at the Rocky Mountain Energy and Infrastructure Summit in Jackson, Wyo., government should attempt to improve coal’s use, Wyoming Business Report indicated. He said the state’s largest coal producer, has 14 lawsuits pending against EPA, Jackson Hole News & Guide reported. Speaking at the summit, Arch Coal CEO John Eaves noted that “There will be a lot of litigation with these proposed rules,” with about 20 states now pushing back against EPA, the Business Report said. Eaves pointed out that the industry faces “some headwinds,” including cheap and abundant, and cleaner, natural gas, a fierce competitor for market share. However, the publication reported, Eaves indicated that natural gas prices would have to drop below $3 per mmBTU, something he doesn’t anticipate happening for a sustained period, to really impact the market for Powder River Basin coal.

Southern Co. Subsidiary Reports Major Milestone at Kemper Plant

Southern Company’s Mississippi Power subsidiary has announced that the combined cycle unit of its Kemper power plant has gone into commercial operation. The utility described this as “the most significant milestone to date” at the plant, a 582-megawatt (MW) integrated gasification combined cycle (IGCC) facility. According to PennEnergy, another significant milestone, the gasifier heat up, is slated for later this year. The publication noted that the gasifiers are the core of Kemper’s integrated gasification process, which will be used to convert lignite into synthesis gas. The facility is scheduled to begin operation in the second quarter of 2015. The industry has been closely watching progress because Kemper will be able to capture carbon dioxide (CO₂) emissions. Meanwhile, an article in The Seattle Times reported slow going at another clean coal project, FutureGen in Illinois. It suggested that problems at the plant, intended to be the first commercial-scale demonstration of oxy-combustion technology that can capture and store more than 90% of a 168-MW plant’s carbon emissions, reflect “broader problems” in the global effort to develop clean coal plants and carbon-capture technology.

ISOS Anticipate Post-Vortex Rethinking of Coal Plant Retirements

In the wake of last winter’s polar vortex, which was followed by a run-up of natural gas prices and reliance in some areas on coal-fired power plants to maintain electric system reliability, some independent system operators (ISOs) are rethinking plans to retire coal-based generation. According to Natural Gas Intelligence, consulting firm ScottMadden looked at the weather’s impact on gas and electricity markets [NGI subscription required] in the upper Midwest, Northeast and Southeast. It found that a loss of generation in some regions “pushed gas pipeline capacity to its limits.” While fuel diversity proved critical for utilities’ storm response, the publication indicated, ScottMadden found that available gas capacity in some regions was “far less than ‘advertised’”; in some cases, it said, oil-, coal-, and nuclear units proved essential. While a significant amount of coal- and oil-fired capacity is scheduled for near-term retirement, the report said, “After last winter’s experience, further consideration is being given by ISOs of which units may need to be maintained, at least for an interim period, for reliability.” It is unclear what impact recent EPA emissions regulations could have on operators considering retaining coal-fired power plants, ScottMadden added.

Report Says Barriers to Fossil Divestment High, But Not Insurmountable

Despite President Obama’s apparent endorsement of fossil-fuel divestment, a successful campaign to encourage institutional investors to sell stocks in coal and other fossil fuel companies “will require far more than dog-whistle support from the president,” the National Journal pointed out. It cited a recent white paper from Bloomberg New Energy Finance which pointed out that “fossil fuels are investor favorites for a reason,” including scale, liquidity, growth and yield. It suggested, however, that for investors, “breaking up with coal would be a smoother ride than dumping holdings in oil and gas.” In the latter sector, nearly 1,500 companies listed on exchanges are valued at $4.65 trillion, Bloomberg reported, while the 275 coal companies are collectively worth about 5% of that amount. According to the National Journal, the paper looked at sectors where divested funds could be moved, such as low-carbon energy markets. This asset class is not large enough to absorb substantial amounts of capital removed from fossil fuel companies, Bloomberg said. However, it added, advocates of stronger action on climate believe this could change “if governments crack down harder on greenhouse gas emissions.”
Coal Currents (continued)
MINING & TRANSPORTATION

Federal Appeals Court Dismisses Industry Challenge to MSHA Rule

A federal appeals court has dismissed a challenge to the MSHA’s “pattern of violations” rule, which can lead to enhanced enforcement at mines the Agency determines have recurring health and safety problems. Under the rule, finalized in January 2013, the Labor Department unit can use citations not yet finalized in deciding whether to place a mine in a pattern of violation status, the Lexington Herald-Leader reported. The rule was challenged by the Kentucky Coal Association (KCA) and other industry groups, which argued, in part, that MSHA was wrong to use pending violations, because many are later dismissed or overturned. MSHA asked the appeals panel to dismiss the challenge on the grounds that it did not have jurisdiction to decide the case; the court concluded that while it can decide matters related to mandatory health and safety standards under the 1977 mine act, the pattern of violations rule is not one of those. The appeals panel did not address the substance of the industry’s claims; an industry attorney said that its substantive case remains strong and other challenges are under way or under consideration.

Rail Delays Send Some Utilities’ Coal Shipments to Barges, Trucks

Delays in rail shipments of coal have forced some of the nation’s coal-burning utilities to turn to barges and trucks to move the fuel from mining regions to their power plants, The Globe and Mail reported. The publication cited figures from energy consultant Wood Mackenzie that about 40% of U.S. electricity is generated at coal-burning plants, and 75% of coal shipments rely on rail transportation to such facilities. This transportation has been impacted by last winter’s weather, which was severe in many regions, and by rising shipments of oil and grain. The newspaper noted that many utilities cannot make a straightforward transport choice, as barge shipments are limited to plants near waterways, and is compounded for plants obtaining coal from Wyoming’s Powder River Basin, which is accessible only by rail. The workaround for some utilities is intermodal shipment, which cuts fuel costs by 15-20% by moving goods in standardized containers using trucks, trains and ships, The Globe and Mail reported. While this is currently a “stop-gap option,” Wood Mackenzie said it may become more widespread if rail problems continue.

West Coast Coal Export Projects: Two Up, One Down

Two projects to facilitate the export of coal from ports on the North American west coast were authorized to proceed, while one was rebuffed by regulators. In Southern California, the Long Beach city council voted 9-0 to uphold the harbor commission’s June decision to approve a 15-year lease and a 20-year renewal lease for use of a 5.4-acre site with a coal shed, the Long Beach Press-Telegram reported. The port projects current-year coal exports of 1.72 million tons. Meanwhile, in Vancouver, B.C., the port authority capped a two-year review process by approving a proposed direct coal transfer facility. Up to 4 million metric tonnes of coal per year will arrive via rail, be loaded onto barges at the facility and subsequently transferred to ocean-going carriers at a nearby island terminal, according to World Maritime News. And in Oregon, the Department of State Lands turned down a construction and removal-fill permit for a proposed coal export project along the Columbia River. The application was filed in February 2012; its disposition marked the first time a state agency in the Pacific Northwest formally rejected such a permit.

INTERNATIONAL INTEREST

Study Sees Possible GHG Reductions From U.S., South Korea Deal

Researchers at Duke University and the University of Calgary have studied a scenario under which the U.S. and South Korea could reduce net greenhouse gas emissions from coal combustion. The study, published in the journal Environmental Science & Technology and reported in Bloomberg Businessweek, takes into account “the superior energy efficiency of South Korea’s newer coal-fired power plants,” as well as the “dirtier” coal available for use in the Asian country. Under the arrangement, the U.S. would export its relatively cleaner coal to South Korea, replacing this domestic coal sent overseas with natural gas. The researchers estimate that the switch would lead to a drop in net carbon emissions of 21% for both countries, even taking into account the energy consumed to transport the coal. According to Duke Today, the deal would generate more than $25 billion in direct and indirect economic activity in the U.S. The researchers cautioned that it’s too early for an unequivocal green light, however, pointing out that further studies are needed to assess the swap’s full environmental and economic impacts.
ON CAPITOL HILL

Senate GOP Leader Sees 2015 Budget Challenges to Obama’s Agenda

Senator Mitch McConnell (R-Ky.), the chamber’s Republican leader, indicated that if the GOP takes Senate control in November’s elections, the party will use the budget process to attack President Obama’s environmental agenda in 2015. Senate-passed spending bills will “have a lot of restrictions on the activities of the bureaucracy,” McConnell said in an interview with Politico. The senator cited EPA’s work as a potential target; while an article in National Journal’s Energy Edge noted that he did not identify specific policies in the interview, “there’s a laundry list of regulations he has targeted in the past.” It includes EPA’s campaign against greenhouse gas emissions (GHG) from power plants; EPA and Interior Department efforts to regulate mountaintop removal coal mining; and “the administration’s longstanding promise to redo regulations on coal ash and other byproducts of coal-fired power plants.” Energy Edge pointed out that earlier this year the President threatened to veto a House bill to block the power plant regulations, and posed the question of whether McConnell would be willing to press spending fights to the point of a government shutdown.

DULY NOTED

“Necessity” Defense to Make First U.S. Court Appearance in Climate Case

A pair of activists who anchored a lobster boat in the shipping channel off the Brayton Point Power Station in Somerset, Mass., New England’s largest, to block the delivery of 40,000 tons of coal are headed for trial on charges of disturbing the peace, motorboat violations and conspiracy. They intend to admit everything, The Boston Globe reported, and then ask the jury to find them not guilty by reason of “necessity”: the legal doctrine that it is acceptable to commit a crime if you are preventing a greater harm. In this case, they will argue, that harm is climate change. The Globe reported that in previous cases, judges have blocked climate protesters’ attempts to use “necessity” as a defense, but the effort was not challenged this time around. So, the newspaper indicated, “for the first time, the climate necessity defense appears bound for an American court,” turning the trial into a policy referendum, rather than just a legal proceeding.

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.