



## NATIONAL COAL ADVISORY – OCTOBER 2014

### NCC ON THE MOVE

The National Coal Council is moving ahead with a new office, a new logo, a new website and a slate of new members! October has certainly been an eventful month for the NCC. At our Annual Fall Full Council Meeting (see next page for a round-up) we premiered our new logo design that reflects a vital, modern industry supporting our nation's energy needs. We'd like to thank Jim Roberts, former NCC member and former CEO of Foundation Coal for his generous contribution in support of the new logo.

Work has begun on the organization and design of our new website. The site is being revised to more accurately portray our organization as the vibrant, modern and environmentally conscious, technology-driven industry it represents. The new site will also more clearly convey the mission and objectives of the NCC, in addition to showcasing our important study findings and recommendations. Finally, the site is being designed to provide easily accessible, factual information in attractive formats that can be shared by NCC members and associates. We'll also be enhancing the accessibility of NCC site content for mobile devices.

Thank You  
**Arch Coal**  
for your  
donation in  
support of  
NCC's  
new website.

#### NEW LOGO ~ NEW OFFICE

**1101 Pennsylvania Ave. NW  
Suite 600  
Washington, DC 20004  
202-756-4524 ~ 202-756-7323 FAX**



Thank You  
**Peabody Energy**  
for your  
donation in  
support of  
NCC's  
new website.

**We are seeking high quality photos and videos for our new website.  
Please contact the NCC office if you have photos/videos  
of your coal mines, power plants, technology sites, railcars  
to showcase on the new site.**

At the Fall Meeting we also announced a new location for the NCC office on Pennsylvania Avenue ~ closer to the U.S. Department of Energy more centrally located to Capitol Hill and many of our members' DC-based offices. Our new Executive Suite office will provide significant savings on overhead and administrative costs, allowing us to put those dollars to more productive use. If you're planning to be in the DC area, we'd love to show you our new office. Email addresses for NCC staff remain the same ~ Janet Gellici at [jgellici@NCC1.org](mailto:jgellici@NCC1.org) and Hiranthie Stanford at [hstandord@NCC1.org](mailto:hstandord@NCC1.org). Please note our new phone number.

Finally, we're pleased to welcome 19 new NCC members appointed by Secretary Moniz in mid-October (see page 3). These additions bring our total membership to 118 members, representing industry, support service providers, academia, government and NGOs.

### NCC LEADERSHIP

#### **Jeff Wallace, NCC Chair**

Vice President Fuel Procurement  
Southern Company Services

#### **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 Hopf

Senior VP Fossil & Hydro  
PPL Energy Plus

Clark Harrison, Sr. Mgr. Bus. Dev.  
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

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Alliance Coal

John Eaves, NCC Chair  
President & CEO, Arch Coal

Mike Mueller  
VP Energy Mgt. & Trading  
Ameren Missouri

Georgia Nelson, CEO  
PTI Resources LLC

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Director Fuels  
Dominion Resources

Robert Bibb, PE  
Bibb Engineers, Architects

Paul Gatzemeier, CBCC

Kathy Walton, Principal  
The Basic Industries Group

#### NCC Staff

Janet Gellici, EVP & COO  
Hiranthie Stanford

Member & Meetings Manager  
Legal Counsel ~ Hunton & Williams

[NationalCoalCouncil.org](http://NationalCoalCouncil.org)

**1101 Pennsylvania Ave. NW  
Ste. 600  
Washington, DC 20004  
(202) 756-4524**

## NCC FALL 2014 MEETING ROUNDUP

The National Coal Council (NCC) hosted its Annual Fall Full Council Meeting October 15-16 at the Gaylord National Resort in National Harbor. Mother Nature did her best to dampen our spirits at the opening reception with blazing thunderstorms and tornadoes that delayed many inbound flights. Those who were in attendance, were treated to a Mother Nature light show during the event and a lovely water fountain light show compliments of the Gaylord to conclude the evening.



The Full Council Meeting program on October 16<sup>th</sup> featured a keynote session with presentations from:

- **Judi Greenwald, Deputy Director for Climate, Environment & Energy Efficiency**  
U.S. Department of Energy's Office of Energy Policy & Systems Analysis (EPSA)
- **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)**

Our program also featured presentations from:

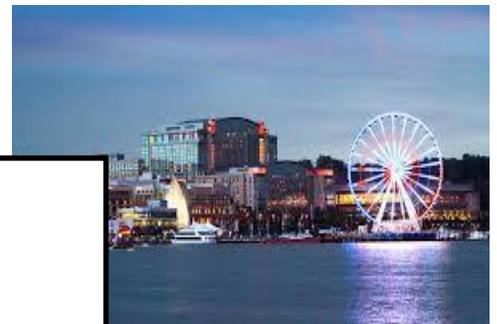
- **Julien Dumoulin-Smith**  
Executive Director /Equity Research Electric Utilities & IPPs  
**UBS Securities LLC**  
"A Financial Industry Analyst Perspective on the Utility Industry"
- **Ken Medlock, Energy Resource & Economics Fellow**  
**Rice University** - Baker Institute for Public Policy  
"Trends in Energy Resource Development & Utilization: Focus on Natural Gas"

Speaker PowerPoint presentations are now up on the NCC website at [www.NationalCoalCouncil.org](http://www.NationalCoalCouncil.org) under the Information – Presentations/Videos tab. Also featured are video recorded presentations by Greenwald and Greene. Thank you NCC member **Jeff Miller** for contributing your videography talents.

We're working on setting dates for NCC meetings in 2015 ~ stay tuned!

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

Thank You 2014 Fall Council Meeting Sponsors!  
**Joy Global**  
**ADA-ES & CSX Transportation & Fuel Tech**  
**PPL EnergyPlus & Tri-State Generation & Transmission**



# CCS/CCUS PROGRESS

## NCC STUDY UPDATE

At the NCC Fall 2014 Meeting, Study Chair **Amy Ericson (ALSTOM Inc.)** provided an update on the NCC study currently underway in response to Secretary Moniz's request to provide him with an assessment of "... the value of DOE's Carbon Sequestration Program ..." and an answer to the question "... what is the industry's assessment of the progress made by DOE and others regarding cost, safety and technical operation of CCS/CCUS?" Technical Chair for the study is **Carl Bozzuto, ALSTOM Power**.

Ericson noted that the study will include six chapters:

- A. The CCU/CCUS Imperative
- B. Status of Current CCS/CCUS Projects & Technologies Worldwide
- C. Overview of Current DOE CCS/CCUS Programs
- D. CCS/CCUS Deployment Challenges
- E. Gap Analysis
- F. Recommendations

Study chapters are being chaired by:

- A. **Holly Krutka**, Shenhua Group
- B. **Pamela Tomski**, Global CCS Institute
- C. **Shannon Angelski**, CURC
- D. **Carl Bozzuto**, ALSTOM
- E. **Jeffrey Phillips**, EPRI

Ericson also noted that a survey has been conducted in conjunction with the study to secure industry's assessment of the value delivered in CCS/CCUS RD&D. The survey queried the degree to which project goals had been achieved; key factors by which DOE assistance was of value; critical impediments to CCS/CCUS deployment; benchmarks for cost, safety, technical operation and public acceptance; and anticipated timeline for commercial status of CCS/CCUS.

Ericson provided an overview of the study review process and milestones. She noted the study is expected to be completed in late January 2015.

## WELCOME NEW NCC MEMBERS

The National Coal Council is pleased to welcome the following members, appointed by the Secretary of Energy in October 2014.

- Dr. Frank Burke**, Energy & Environmental Consultant  
**Brad Crabtree**, Great Plains Institute  
**Joseph Divoky**, Babcock & Wilcox Power Generation Group
- Maohong Fan**, University of Wyoming, School of Energy Resources  
**Ben Hatfield**, Patriot Coal Corporation  
**Dr. Jeff Hopkins**, Center for Climate & Energy Solutions & NEORI
- Revis James**, EPRI  
**Dr. Michael Jones**, Lignite Energy Council  
**Casey Kaptur**, RungePincockMinarco
- Michael Kennedy**, Kentucky State Dept. for Energy Development  
**George McClellan**, Clean Coal Solutions  
**Ram Narula**, Consultant
- David Piejak**, LP Amina | Energy & Environmental  
**Carole Plowfield**, FutureGen Industrial Alliance  
**Robert Puissant**, Fuel Tech, Inc.
- Angila Retherford**, Vectren Corporation  
**Dan Roling**, NOVADX Ventures Group  
**Dawn Santoianni**, Tau Technical Communications  
**Mark Stemm**, Porter Wright Morris & Arthur

## COAL RESOURCES

Department of Energy  
[www.doe.gov](http://www.doe.gov)  
[Office of Fossil Energy](#)

National Energy  
 Technology Laboratory  
[www.netl.doe.gov](http://www.netl.doe.gov)  
[Coal & Power Systems](#)

EIA Coal Data Browser  
[www.eia.gov/coal/data/browser](http://www.eia.gov/coal/data/browser)

Mike Rowe on  
 Remembering the Miners  
[Video Thank You to U.S. Miners](#)

Less Severe Winter  
 Weather Ahead?  
[EIA Projections for Winter 2014-2015](#)

U.S. Power Plant Capacity  
 Additions in 2014  
[Natural Gas, Solar & Wind Dominate](#)

SaskPower's Boundary  
 Dam  
[CCS Project Opens October 2014](#)

"Don't Constrain Energy  
 Growth"  
[Chip Knappenberger OpEd USA Today](#)

Potential Energy Impacts  
 of EPA Clean Power Plan  
[NERA Consultants Analysis](#)

NRECA Comments on  
 EPA's Modified and  
 Reconstructed Rule  
[National Rural Electric Cooperative Association](#)

Early Action in the Clean  
 Power Plan  
[Bipartisan Policy Center](#)

Clean Power Plan Energy  
 Security Impacts  
[U.S. Chamber of Commerce Perspective](#)

### **Gellici Speaking Engagements**

[Power Experts Conference](#)  
 Atlanta – November 5  
[American Coal Ash Association](#)

Savannah - February 10

National Coal Council  
[NationalCoalCouncil.org](http://NationalCoalCouncil.org)



# NCC STUDY DETAIL

## Reliable & Resilient: The Value of Our Existing Coal Fleet

In May 2014, NCC members approved a study the Council conducted for Secretary of Energy Moniz assessing various opportunities for enhancing the capacity, efficiency and emissions profile of the existing U.S. coal fleet. This 7-part series of articles details primary findings and recommendations from key sections of the report.

### Improving Flexibility & Reliability of the Existing Coal Fleet

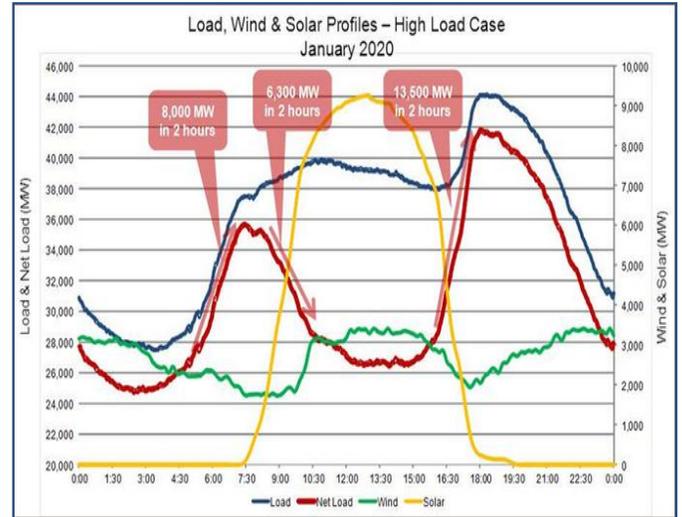
Most of the larger generating units in the existing coal fleet were designed to run as baseload units. With the advent of relatively low-priced natural gas and renewable portfolio standard mandates, these coal units are increasingly being dispatched in a cycling mode, incurring more frequent startups and shutdowns. Must-run wind facilities and NG combined cycles are being dispatched ahead of coal.

At the same time, when market conditions revert suddenly, such as during the Polar Vortex of January-February 2014 when gas prices escalate or gas supply is not assured, or when renewable resources are unavailable, coal units have to quickly adapt to higher run times and capacity factors.

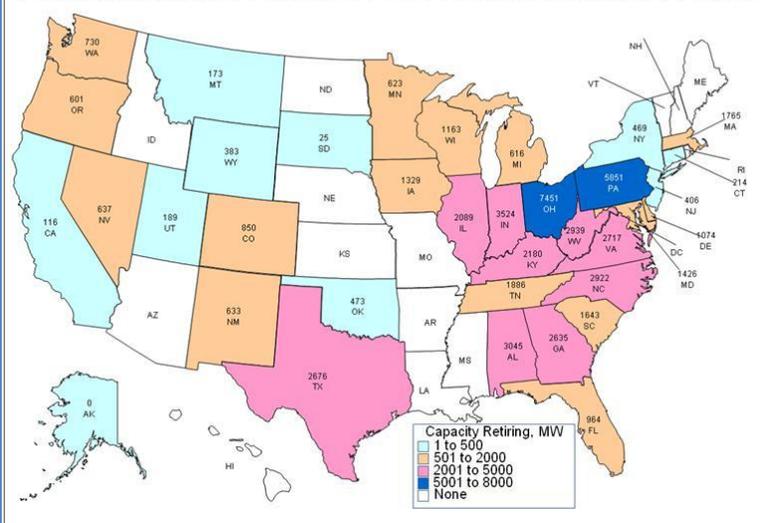
Frequent starts and stops and ramping impose stresses on coal units, increasing O&M costs. Units suffer from thermal degradation, corrosion and fatigue of thick-walled metal components; lower efficiency; and elevated emissions levels. A full complement of environmental control systems (scrubbers, SCRs, SNCRs) protect against higher emissions but reduce unit flexibility. Dispatch and cycling stresses increase the likelihood of critical component failures and focused outages.

Older, smaller coal units which traditionally handled the load swings are being permanently retired, forcing larger and larger coal units into flexible but highly stressful operation. Given the difficulty of permitting and developing new, more flexible coal units in the near term, loss of flexibility in the existing coal units becomes a critical factor in the security and stability of the grid.

Managing all inputs into and outputs from a coal unit – water, coal deliveries, scrubber sorbents, catalysts, ash, and emissions – gets progressively more difficult under such transient conditions.



### Announced and Planned Coal Retirements: 2010-2020



**NCC Recommendation - DOE should lead collaborative efforts to develop better assessment tools for cyclic stresses and impacts, best practice guidelines for cyclic operations, R&D investigations into cycling of emissions control systems, advanced materials that better withstand stresses, coal treatment options, and advanced control and automation systems which help manage units under aggressive cycling and dispatch conditions.**

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](http://www.NationalCoalCouncil.org) under the "Information/Reports" tab.

## NCC MEMBER FOCUS

**Chris Jenkins is a long-standing member of the U.S. coal industry who has earned the respect and admiration of colleagues for his railroading expertise. Having had the privilege of working with Chris for many years, I know him to be a true gentleman who has donated significant hours of service on non-profit industry boards. He is a valued and committed member of the NCC Executive Committee. Thank you for your NCC service, Chris!**

Chris Jenkins is Vice President of the Coal and Automotive Service Groups at CSX Transportation, headquartered in Jacksonville, Florida. Beginning in 1827 as the Baltimore and Ohio Railroad, CSX Transportation is now the largest railroad in the eastern United States, and operates a 21,000 mile network in 23 states and two Canadian provinces.

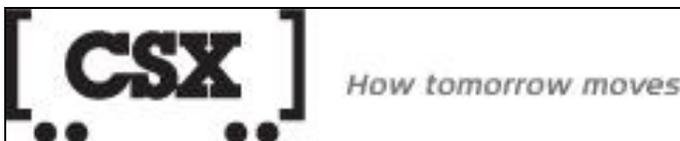
Chris has responsibility for the Sales and Marketing functions for CSXT's 130 million ton per year coal transportation business, and for its Automotive Service Group which moves about 5 million new automobiles annually. In addition, Chris has responsibility for the operations at the CSXT coal and iron ore piers in Baltimore, MD Toledo, OH and Maysville, KY.

Chris grew up in Corning, NY and graduated from Williams College in 1980 with a major in economics. He earned a MBA from Harvard Business School in 1982. He has worked for 32 years for CSX Transportation and has led CSXT's coal group for the past 14 years. He has served as a member of the board of directors for several CSX affiliates, including the Indiana Railroad, the Paducah and Louisville Railroad and the TTI Railroad.

Chris and his wife Kate have two children. Their daughter Chloe earned her MD in 2014, and their son Dan is a second year medical student.

Chris has been a member of the Executive Committee of the National Coal Council for many years. Chris says that "The National Coal Council serves a critical role as a Federal Advisory Committee. Through its meetings, the Council bridges the distance between government, industry and academia. I have found the meeting presentations and Council studies to be powerful tools. Presentations from DOE officials at Council meetings are informative and thought provoking.

"In addition, The National Coal Council has proven to be an important forum for identifying emerging trends in energy technology and policy that could change our business. As a transportation provider, it helps our company identify emerging trends and better develop long-range plans."



**CHRIS JENKINS**  
**VICE PRESIDENT**  
**COAL & AUTOMOTIVE SERVICES GROUPS**  
**CSX TRANSPORTATION**

CSX Corporation is one of the nation's leading transportation suppliers.

The company's rail and intermodal businesses provide rail-based transportation services including traditional rail service and the transport of intermodal containers and trailers.

CSX's transportation network serves some of the largest population centers in the nation. Nearly two-thirds of Americans live within CSX's service territory.

CSX serves major markets in the eastern United States and has access to over 70 ocean, river and lake port terminals along the Atlantic and Gulf Coasts, the Mississippi River, the Great Lakes and the St. Lawrence Seaway. The company also has access to Pacific ports through alliances with western railroads.

CSX moves a broad portfolio of products across the country in a way that minimizes the effect on the environment, takes traffic off an already congested highway system, and minimizes fuel consumption and transportation costs.

**500 Water Street**  
**Jacksonville, FL 32202**  
**(904) 366-5693**  
**[Chris.Jenkins@csx.com](mailto:Chris.Jenkins@csx.com)**

## Coal Currents

Todd H. 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.

### LEADING NEWS

#### **Next U.S. Emissions Target Will Be Announced in Early 2015, Obama Tells UN Summit**

Speaking at the United Nations Climate Summit in New York, President Obama said the United States is on course to meet its five-year-old pledge of cutting carbon emissions by some 17% below 2005 levels by the year 2020, and signaled that additional efforts will follow. The Chief Executive pointed to efforts in clean energy and energy efficiency, as well as his Administration's Climate Action Plan, which he said would "double down on our efforts" by cutting the carbon emissions allowed from power plants.

While he unveiled no new goals, Obama indicated [the administration would announce the next U.S. emissions target early next year](#). The President emphasized the international nature of the climate challenge, asserting that "no nation is immune." He called on all 120 countries at the summit, developed and developing alike, to get involved, stressing "Nobody gets a pass."

*The New York Times* reported UN officials said that in order to reach a deal by a late-2015 climate summit in Paris, countries must unveil concrete plans by April 1 specifying how they will cut their energy-related fossil fuel emissions after 2020. Speaking in New York, Secretary of State John Kerry pledged that [the U.S. would take the lead in bringing nations to the table on climate](#). He indicated that a group of foreign ministers will meet next year and "hold all nations ... accountable and to measure ourselves about what the targets are we set as we go into Paris next year."

"The 2015 UN agreement is not going to be the final step towards solving climate change," Kerry acknowledged. "But ... it's going to be the most important one we've had perhaps since Kyoto and may be the demarcation point for the reality of whether we have a chance of getting there or don't."

### CLIMATE CHANGE

#### **EPA Extends Deadline for Comment on Emissions Cuts Proposal**

The Environmental Protection Agency (EPA) has extended the deadline for comment on its Clean Power Plan (CPP) proposal, which calls for reductions in U.S. greenhouse gas emissions of up to 30%, compared with 2005 levels, by 2030, until Dec. 1. Comments initially were due Oct. 16, 120 days after release of the 600-plus-page proposal. Janet McCabe, acting administrator for air and radiation, attributed the 45-day delay to "the strong amount of interest we've seen from stakeholders." [Expressions of interest included a letter from 53 Senators](#) – 43 Republicans and 10 Democrats (several of whom are facing tough reelection challenges) – calling for a 60-day extension due to the complexity and magnitude of the proposed rule. "The challenge is not only one of commenting on the complexity and sweeping scope of the rule, but also providing an opportunity to digest more than 600 supporting documents released by EPA in support of the proposal," the senators said. EPA still intends to issue a final rule in June 2015, as originally planned.

### IN THE INDUSTRY

#### **EPA Issues FutureGen First-Ever Permits for CCS Operations**

[EPA has issued the FutureGen Industrial Alliance four permits allowing it to utilize carbon capture and storage \(CCS\) at its FutureGen 2.0 coal-fired plant in Illinois](#). The \$1.65 billion project is intended to refit an existing coal-fired power plant and, after capturing its carbon dioxide (CO<sub>2</sub>) emissions, pump them into a geologic formation 4,000 feet underground for long-term storage, *MIT Technology Review* reported. According to EPA, FutureGen's goal is to capture and inject 1.1 million metric tons of CO<sub>2</sub> annually for 20 years. Alliance CEO Ken Humphreys termed EPA's go-ahead "a major milestone" allowing FutureGen 2.0 to stay on track to develop the first commercial-scale, near-zero emissions coal-fueled power plant with integrated CCS. Remaining obstacles include a Sierra Club lawsuit challenging a permit from the state's environmental protection agency over the issue of air discharges from the project. According to AP, Humphreys said the complaint hampers the Alliance's ability to raise money to complete project financing.

## Coal Currents (continued) ON CAPITOL HILL

### Info Sought on Alleged EPA-Greens "Collusion" on Rulemakings

Congressional Republicans are seeking information on the alleged role of the Natural Resources Defense Council (NRDC) in the drafting of EPA's proposed regulations limiting carbon emissions from existing fossil-fueled power plants. In a letter to EPA Administrator Gina McCarthy, Rep. Darrell Issa (R-Calif.), chairman of the House Oversight and Government Reform Committee, along with two other House members and three Senators, charged that [EPA and NRDC were "colluding ... to craft regulatory policy and shape agency action outside of the normal regulatory process."](#) The letter, also sent to NRDC's president, asserted that the "unprecedented access" accorded the green group and its backers provided them "an inappropriate opportunity" to wield executive branch powers. The missives cited *New York Times* coverage of NRDC's "pivotal role," and demanded an immediate end to such practices. They called on EPA and NRDC to provide all documents and communications relating to their work on the carbon emissions proposal.

### Bipartisan House Bill Seeks Transition Assistance for Miners

Reps. David McKinley (R-W.Va.) and Peter Welch (D-Vt.) have introduced [legislation to establish a transition assistance program for displaced miners and other workers in coal communities](#). The program set out in the Healthy Employee Loss Prevention Act (HELP Act) would assist affected workers find jobs or retraining programs. According to the *Burlington Free Press*, under the HELP Act, workers would be eligible for benefits and training if a commission determines they lost employment due to any of a variety of factors causing a coal industry downturn. The Vermont newspaper indicated the sponsors will seek additional support after the new Congress takes office early next year. The *Free Press* reported that the National Mining Association (NMA) characterized the bill as "well-intentioned," but suggested that a better solution would have been "environmental regulations that do not contribute to the wholesale destruction of a regional industry."

## MINING & TRANSPORTATION

### President's Legacy on Mountaintop Mining Said Up for Debate

President Obama's record, and legacy, on mountaintop coal mining remains up for debate years after his Administration took what were described as "unprecedented steps" to protect the environment from its effects, Bloomberg BNA reported. The uncertainty involves a June 2009 memorandum of understanding (MOU) signed by EPA, the Army Corps of Engineers and the Interior Department, which aimed to tighten oversight of mining operations, among other goals, the article specified. However, more than five years later, [green groups contend that the MOU's implementation has been mixed, while the mining industry asserts that governmental actions have damaged Appalachian economies](#). And, Bloomberg BNA reported, while environmental groups have called on the Administration to solidify protections before the president leaves office, EPA has said that not all items on the advocates' list will be completed.

### Wyoming Appeals Oregon Denial of Coal Export Project Permit

The state of Wyoming has appealed the Oregon Department of State Lands' denial of a construction and removal-fill permit for a proposed coal export terminal project along the Columbia River, citing constitutional infirmities, an AP item in *The Columbian* reported. According to Wyoming Gov. Matt Mead, Oregon's decision prevents his state's coal producers from competing in the marketplace for coal – "the fastest-growing fuel source in the world" – in violation of the U.S. Constitution's Commerce Clause. [Mead contended the rejection was premised simply on Oregon officials' dislike of coal](#). Other appeals have been lodged by the Port of Morrow, site of the proposed terminal, and a subsidiary of the Australian company seeking to construct the facility. The CEO of that company's North American operations said, "It's pretty clear the politics of coal overshadowed this process from the beginning."

**Coal Currents** *(continued)***ENERGY ISSUES****GAO Raises Estimates of Upcoming U.S. Coal Plant Retirements ...**

[Federal prognosticators have increased their forecast of upcoming coal-fired generating capacity retirements.](#) In a new report, the Government Accountability Office (GAO) estimated that about 13% of U.S. coal-fueled capacity – 42,192 megawatts (MW) – has been retired since 2012 or is planned for retirement by 2025, an uptick from its previous estimate of "between 2 to 12% capacity." GAO's report, "Update on Agencies' Monitoring Efforts and Coal-Fueled Generating Unit Retirements," noted that these units "are generally older, smaller, more polluting and not used extensively." The document added that this capacity is geographically concentrated in four states: Ohio (14%), Pennsylvania (11%), Kentucky (7%) and West Virginia (6%). It also identified about 70,000 MW that has been retrofitted to reduce emissions since 2012 or is to be retrofitted by 2025; this is less than GAO's 2012 estimate of 102,000 MW. While the retirements are not expected to cause widespread reliability concerns, GAO indicated, "some regions may face reliability challenges," including those due to increasing reliance on natural gas.

**... Sparking Warnings of Danger to Reliability of Nation's Grid**

GAO's report on the retirement of U.S. coal-fueled generating capacity "verifies the dangerous impact EPA's proposed rules are having on our electrical grid and our economy," asserted Sen. Joe Manchin (D-W.Va.). According to the *Bluefield Daily Telegraph*, the Senator warned that "I truly believe we are setting ourselves up for a major electric stability crisis in this country." Rather than forcing plants to close, Manchin said, the U.S. needs to determine how to help them operate more efficiently. "If we don't," he said, "prices will soar and the grid will fail." Writing in *InsideSources*, former Missouri PSC commissioner Terry Jarrett cautioned that under EPA regulations, many coal-fired power plants could be forced out of operation. Jarrett cited last winter's Polar Vortex, where many coal plants slated for retirement were called into service to meet peak demand. Therefore, former state commissioners nationwide have written state regulators and EPA, stressing [the importance of a diversified power portfolio, including coal, capable of meeting U.S. electricity needs](#), he underscored.

**Increasing Geographic Divide Seen in U.S. Use of Coal**

[Coal use in the United States is increasingly marked by a geographic divide](#), according to the *National Journal*. It reports that West Coast states are converging around a regional strategy unplugged from coal and providing a model for other environmentalist-friendly states to follow. Meanwhile, "conservative red states – many of which produce fossil fuels, rely on coal-fired electricity, or both – are mobilizing against [EPA's carbon emission regulations] and the broader energy transition they would promote." The divide is symbolized by two actions: Senate Minority Leader Mitch McConnell's statement that if the GOP takes control of the upper chamber, he would use mandatory spending bills to try to block the EPA rules; and Oregon's denial of a permit for a proposed facility for exporting Powder River Basin coal to Asia. "Simultaneously, the Pacific states are further unwinding their already modest reliance on coal-generated power," the *Journal* noted. If these states prove they can obtain affordable power without coal, the article suggested, "they may provide a beacon" to other states looking for energy alternatives.

**INTERNATIONAL INTEREST****German Push for Green Power Boosts Reliance on Coal: WSJ**

Berlin's "energy revolution" is going great – if you own a coal mine," commented *The Wall Street Journal*. An article entitled "Germany's Coal Binge" (*subscription required*) reported that that nation's shift to renewable power resources, beginning in 2000, has brought the green share of the nation's electricity to around 25%. However, [the rest of the energy mix has become more heavily concentrated on coal](#), which now accounts for about 45% of power generation, and is growing. The *WSJ* termed this a result of the aforementioned "energy revolution," which it described as "a drive to thwart market forces and especially price signals, that might otherwise allocate energy resources." Examples include feed-in tariffs, the accelerated phase-out of nuclear power, and a moratorium on fracking. The government estimates that these policies could cost one trillion euros by 2040, making cheaper coal more appealing, the *Journal* said.

## Coal Currents *(continued)*

### BY THE NUMBERS

#### **Changing Fuel Costs**

##### **Hike Coal's Generation Market Share**

DOE's Energy Information Administration (EIA) has reported that changes in relative fuel costs have altered the mix of plants used to generate electricity. According to the statistical unit's [September Short-Term Energy Outlook](#), 2014 natural gas prices for the power sector are expected to be more than 20% higher than last year, while prices of coal delivered to power plants are expected remain flat. As a result, coal's share of total generation is rising from 39.1% in 2013 to 40.1% this year, while the share of U.S. generation fueled by gas fell from 2013's 27.4% to 26.7%. Looking ahead, EIA indicated it expects the power sector's price of natural gas to fall by 12% in 2015. The lower price, combined with scheduled retirements of coal capacity, should push up natural gas's fuel share next year to 27.6% and reduce coal's share to 38.8%.

#### **Global Emissions of Carbon Set a New Annual Record**

Global emissions of carbon dioxide (CO<sub>2</sub>), principally from burning fossil fuels, increased by 2.3% in 2013, with [more than 9 billion tonnes of carbon, a record, released into the atmosphere](#), the Global Carbon Project reported. Half of the emissions were removed by the ocean and land carbon sinks, the international initiative noted. Coal combustion was responsible for 43% of the total emissions, followed by oil at 33% and gas at 18%, the Project indicated. Global totals were dominated by emissions from China (28%), the U.S. (14%), the EU's 28 member states (10%), and India (7%). The Project reported that U.S. emissions rose by 2.9% during 2013 after declining in previous years. While the decline was due in part to the increased use of natural gas in power generation, according to *The New York Times*, coal has regained some market share.

### DULY NOTED

#### **No Day in Court for "Necessity" Defense in Climate Case**

The district attorney in Bristol, Mass., has dropped charges against a pair of activists who anchored a lobster boat in the shipping channel off the Brayton Point Power Station in Somerset, Mass., to block the delivery of 40,000 tons of coal. DA Samuel Sutter announced his action the morning of the pair's trial on charges of disturbing the peace, motorboat violations and conspiracy. The activists had intended 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, climate change. Sutter indicated that he sympathized with the protesters' position. According to *The Globe*, [the DA said he was not concerned his action would set a precedent for future lawbreaking by activists](#). "There is only a precedent for almost identical facts," he suggested.

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](http://www.linkedin.com). To discuss your editorial needs, contact Todd via email at [tcunningham03@comcast.net](mailto:tcunningham03@comcast.net).