



## NATIONAL COAL COUNCIL ~ MAY 2016

### NCC MEMBERS WELCOME SECRETARY MONIZ AT SPRING MEETING FOCUS ON INNOVATION

The National Coal Council was pleased to welcome the **Honorable Ernest Moniz, U.S. Secretary of Energy** as a keynote presenter at its Annual Spring Meeting on April 20<sup>th</sup> in Washington, DC. The Secretary addressed a full house of over 100 NCC members, industry associates and media. His keynote provided an insightful summary of the Department of Energy's (DOE) efforts to advance energy technology innovation through such initiatives as the global Mission Innovation program, the newly launched U.S. Regional Innovation Partnerships, and Innovation CCS (iCCS).



(See page 4 for a full recap of the Secretary's remarks.)

NCC was also pleased to welcome a keynote presentation from **Armond Cohen, Executive Director** of the **Clean Air Task Force (CATF)**, who discussed the need for zero carbon on-demand power. Cohen highlighted results from numerous studies on variable renewable energy, concluding that zero carbon baseload and dispatchable capacity (e.g., nuclear and decarbonized fossil) will likely be essential to deep carbon reductions. He noted that while energy storage can help address daily fluctuations associated with renewable energy, it does not solve multi-week and seasonal variations.

Cohen detailed a three-prong approach to advancing policies for zero carbon capacity:

1. Aggressive RD&D and early deployment policies to move forward cost and improve performance and innovation, including CCS.
2. Zero carbon capacity procurement incentives.
3. Making clean energy policies technology neutral.

The NCC Spring program additionally featured the following innovation-related presentations:

- ~ Advanced Ultra-Supercritical Technology Update  
**Bob Purgert, Energy Industries of Ohio** and **Jeff Phillips, EPRI**
- ~ Redefining Carbon Capture - **Buz Brown, ION Engineering**
- ~ Iron + Power + Steel - **John Schultes, New Steel International**
- ~ Converting Coal to High-Value Carbon Products & Chemicals  
**Kipp Coddington, Carbon Management Institute, Univ. of Wyoming**

PDFs and videos of all presentations are available on the NCC website.

<http://www.nationalcoalcouncil.org/page-Meeting-Presentations.html>

**THANK YOU SPONSORS/SUPPORTERS!**  
**Soap Creek Energy & Southern Company**  
**CH2M & University of Wyoming & West Virginia University**

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**A new feature in the NCC newsletter!**  
 We'd like to keep our NCC community informed  
 of good news from our members.  
 NCC members are invited to submit good news  
 items regarding their companies and  
 organizations to  
 Janet Gellici at [info@NCC1.org](mailto:info@NCC1.org).

**Fred Palmer, Total Spectrum**  
**Keynotes Platts Coal Properties Conference**  
[www.totalspectrumsga.com](http://www.totalspectrumsga.com)

**Fred Palmer**, Partner at **Total Spectrum** delivered a keynote address at the Platts 24<sup>th</sup> Annual Coal Properties & Investment Conference in March 2016, calling upon banks and other financial investors to take another look at 21<sup>st</sup> Century Coal. A copy of Fred's presentation can be accessed at:  
[http://totalspectrumsga.com/files/content/press/FDP - Platts Mar 2016-  
 \\_21st Century Coal%2C Policy Parity and Technology comp.pdf](http://totalspectrumsga.com/files/content/press/FDP_-_Platts_Mar_2016-_21st_Century_Coal%2C_Policy_Parity_and_Technology_comp.pdf)

**Pamela Tomski, SAS Institute, Inc.**  
**Assumes New Job Position**

<http://support.sas.com/training/fyi/ro.html>

Congratulations to **Pamela Tomski** on her new job as Senior Account Executive with **SAS Institute**. In her new role, Pam will be working with government customers at the U.S. Department of Energy, NASA and the National Science Foundation to provide business solutions through data analytics, business intelligence and data management. Pam can be reached at [Pamela.Tomski@sas.com](mailto:Pamela.Tomski@sas.com) or 202-390-8896.

**DEPARTMENT OF ENERGY PERSONNEL UPDATE**

**JULIO FRIEDMANN**  
**Returns to National Lab**

[www.llnl.gov](http://www.llnl.gov)

**Julio Friedmann**, former Principal Deputy Assistant Secretary, Office of Fossil Energy at DOE has returned to California at the Lawrence Livermore National Lab where his primary focus continues to be on clean energy technology development, with a focus on the State of California, industrial partnerships and Mission Innovation. Julio, a former member of the National Coal Council prior to assuming his position at DOE, was an eloquent advocate for coal technology. NCC wishes Julio the best of luck in his renewed role at LLNL.

Julio can be reached at [friedmann2@llnl.gov](mailto:friedmann2@llnl.gov) or 925-423-0585.

**Douglas Hollett, PDAS Fossil Energy**  
**Welcome!**

<http://energy.gov/fe/contributors/douglas-hollett>

NCC would like to welcome **Douglas Hollett** the newly appointed Principal Deputy Assistant Secretary (PDAS) in the Office of Fossil Energy. His portfolio includes R&D and programs in Clean Coal and Carbon Management, Oil and Natural Gas Systems, international engagements in clean fossil energy, and inter-agency engagements within the U.S. government. We look forward to working with PDAS Hollett!



**COAL RESOURCES**

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

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

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

Cutting Coal Emissions  
[MIT Hybrid System MIT  
 News April 2016](http://www.mit.edu/news/2016/04/01/mit-hybrid-coal)

German coal plants face  
 threat of cash-strapped  
 summer  
[ICIS 4-6-16](http://www.icis.com/news/2016/04/06/german-coal-plants)

Regulators put coal  
 companies in double  
 jeopardy  
[Betsy Monseu Letter to  
 Editor Washington Post 4-  
 7-16](http://www.washingtonpost.com/news/energy-environment/wp/2016/04/07/betsy-monseu-letter-to-editor-washington-post-4-7-16/)

Solar & Wind May Be Nice  
 But How Do We Store It?  
[NPR 4-5-16](http://www.npr.org/2016/04/05/471111111/solar-wind-may-be-nice-but-how-do-we-store-it/)

Can Wyoming's Biggest  
 Coal Town Create a New  
 Future?  
[Scientific American 4-13-  
 16](http://www.scientificamerican.com/article/2016/04/13/can-wyoming-s-biggest-coal-town-create-a-new-future/)

Duke's Lynn Good Looks  
 Into the Future of Coal  
[WSJ 4-12-16](http://www.wsj.com/articles/dukes-lynn-good-looks-into-the-future-of-coal-1459844400)

Want Clean Coal? Try This  
 Idea – Non-thermal Plasma  
[Environmental Leader 4-  
 14-16](http://www.environmentalleader.com/2016/04/14/want-clean-coal-try-this-idea-non-thermal-plasma/)

Bipartisan Progress on  
 Fighting Climate Change is  
 Possible  
[CNN 4-21-16](http://www.cnn.com/2016/04/21/politics/bipartisan-progress-on-fighting-climate-change-is-possible/)

8 Maps that Reveal  
 Americans' Incoherent  
 Opinions on Climate  
 Change  
[Vox 4-21-16](http://www.vox.com/2016/4/21/11444444/8-maps-that-reveal-americans-incoherent-opinions-on-climate-change)

Obama's Stealth War to  
 Make Coal Clean ~ NCC  
 Meeting Report  
[Washington Examiner 4-25-16](http://www.washingtonexaminer.com/obamas-stealth-war-to-make-coal-clean-ncc-meeting-report)

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

## NCC Member Focus

**Sheila Glesmann is among the NCC's newest members having been appointed in 2016. Sheila immediately stepped up her engagement with NCC through an added membership in the Chair's Advisory Council. Thanks for your support, Sheila!**

Sheila Glesmann is a mechanical engineer who has worked in various roles in the power industry, with an emphasis on project development and air pollution control, for over 25 years. Her current focus is on power generation, primarily from coal, and keeping coal plants successful in an ever-evolving environment.

Sheila currently serves as Senior Vice President of Environmental and External Affairs at ADA Carbon Solutions, LLC. Her responsibilities include environmental oversight company-wide, including the Responsible Official role for ADA Carbon Solutions (Red River), LLC, which owns and operates a Title V facility in Louisiana that manufactures activated carbon from Louisiana lignite coal feedstock.

From 2006 to 2010, Sheila led the development of the Red River Plant, including feasibility analysis, siting, permitting, contracting with and overseeing the suppliers and EPC contractors, and managing startup and acceptance testing. This \$350 million project established the largest and most environmentally friendly activated carbon plant focused on flue gas mercury control. The project started as a feasibility study by ADA Environmental Solutions, Inc. and developed into a joint venture (ADA Carbon Solutions, LLC) formed in 2008, financed by Energy Capital Partners. Today the company is wholly owned by Energy Capital Partners, a private equity firm.

Sheila is also the liaison for ADA Carbon Solutions to industry groups and key customer groups in power generation. In prior work, she consulted with power industry clients on air pollution control strategies and deployment, supported due diligence for power plant transactions, and developed significant technical expertise on coal-fired power generation and industrial air pollution control (especially mercury control and combustion-based NO<sub>x</sub> control).

Sheila is also serving as the co-chair for the mercury control division at the Institute of Clean Air Companies, an industry trade group of key suppliers of emissions control equipment, chemicals and measurement systems.

Sheila earned her B.S., Mechanical Engineering from the University of Maryland, College Park and is a registered professional engineer (discipline: Mechanical).



**SHEILA H. GLESMANN, P.E.**  
**SENIOR VICE PRESIDENT**  
**ENVIRONMENTAL & EXTERNAL AFFAIRS**  
**ADA CARBON SOLUTIONS**

ADA Carbon Solutions, LLC has in very short order become the leading supplier of powered activated carbon (PAC) for mercury control in the U.S. MATS market. Over 80 GW of coal-fired power generators rely on ADA Carbon Solutions to supply this key chemical for mercury emissions compliance. Many waste-to-energy plants, as well as industrial boilers and water treatment plants also use ADA PACs. The company's products have evolved from Generation 1 standard PowerPAC® series to Generation 2 FastPAC® series, Generation 3 FastPAC 80® series, and beyond to address specialized customer needs, such as high temperature or high-SO<sub>3</sub> flue gas environments.

ADA-CS's focus on coal-fired customers' needs drives a significant investment in research and development and continuous improvement, as well as supply chain reliability and quality control. The company is committed to the critical role of coal in a stable energy policy. It has developed tools such as its Compliance Campus (<https://compliance.ada-cs.com/>) to enable access to key research relevant to coal-fired power plants, and to provide its customers with peace of mind while meeting the challenges of mercury control.

ADA Carbon Solutions is proud to be a member of the National Coal Council and participate actively in shaping energy policy that impacts both its operations and its customers.

**Sheila Glesmann**  
**ADA Carbon Solutions LLC**  
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[www.ada-cs.com](http://www.ada-cs.com)



## INNOVATION IS KEY DRIVER AT DOE

As was evident from **Secretary Moniz's** keynote address at the NCC Annual Spring Meeting, the Department of Energy is focusing its efforts in these waning months of the Obama Administration on advancing an energy innovation agenda. The innovation imperative stems from the global **Mission Innovation** initiative launched at the United Nations Climate Change Conference 2015 (COP21) in Paris in November 2015. Mission Innovation aims to reinvigorate and accelerate global clean energy innovation with the objective to make clean energy widely affordable. Through the initiative, 20 countries have committed to double their respective clean energy research and development investments over five years. <http://mission-innovation.net/>

Secretary Moniz commented on a related effort to spur energy technology development ~ the Breakthrough Energy Coalition (BEC). As reported in the [March 2016 NCC newsletter](#), this Coalition's foundational principle is to dramatically scale up public research to develop technologies that provide "energy that is reliable, affordable and does not produce carbon." BEC notes that in addition to government research, the skills and resources of leading investors will be needed to drive innovation from the lab to the marketplace. BEC's supporters include Jeff Bezos, Bill Gates, George Soros, Meg Whitman and Mark Zuckerberg among other luminaries.



At the NCC meeting, Secretary Moniz discussed U.S. efforts associated with the Mission Innovation initiative, noting that DOE's FY2017 budget proposal takes a significant first step toward fulfilling the U.S. pledge to double Federal clean energy R&D. The DOE Fossil Energy R&D FY 2017 budget proposal of \$600 million includes \$564 million to support Mission Innovation, an increase of \$31 million from the enacted FY2016 budget of \$533 million.

Secretary Moniz provided NCC members attending the Spring Meeting with copies of a just-released paper, "Federal Investments in Coal as Part of a Clean Energy Innovation Portfolio." The paper provides a holistic picture of the Administration's investment in coal through DOE's FY2017 budget, along with plans for restructuring the fossil energy RD&D effort. DOE coal investments planned for 2017, summarized below, are detailed in the paper presented by the Secretary. NCC members may request a copy of the paper by contacting Janet Gellici at [jgellici@NCC1.org](mailto:jgellici@NCC1.org). The Secretary asked for comments and feedback which may be directed to staff at the Office of Fossil Energy.

### FY2017 Federal Budget Investments in Coal

Program	(\$ millions)
<b>DOE Coal Technology Research &amp; Development Programs</b>	
Fossil Energy Research & Development	\$ 600
Science	\$ 56.5
Advanced Research Projects Agency – Energy	\$ 63
R&D Crosscutting Initiatives	\$ 504.2
International Cooperation through Domestic Investments	\$ 37.5
<b>Coal Technology Demonstration &amp; Deployment Activities</b>	
CCUS Demonstration Projects	\$1,422
Loan Guarantee Program (Loan Authority)	\$8,500
CCUS Deployment Incentives (Tax Credits)	~\$5,000
<b>Targeted Economic &amp; Workforce Development</b>	
Interagency POWER Initiative	\$ 75
Small Business Administration	\$ 0.45
Office of Surface Mining Reclamation & Enforcement	~\$1,072
DOL Employment & Training Administration	\$ 19

## INNOVATION AT DOE (continued)



Secretary Moniz also spoke about DOE's Regional Clean Energy Innovation Partnerships, designed to complement the national R&D effort. The program creates up to 10 centers that will engage universities, industries, investors, labs and others to work toward technology-neutral clean energy breakthroughs that support regional needs. The first regional partnership meeting was hosted in Rhode Island on April 18<sup>th</sup>. Following the NCC meeting, the Secretary noted he was enroute to the second meeting being hosted in Lexington, KY on April 21<sup>st</sup>.

<http://energy.gov/articles/president-s-2017-budget-proposal-doe-supports-energy-innovation-national-security-nuclear>

<http://uknow.uky.edu/content/us-energy-secretary-moniz-visits-uk-energy-innovation-forum>

National Coal Council Member Rodney Andrews, Director of the University of Kentucky's Center for Applied Energy Research (CAER) listens to U.S. Secretary of Energy Ernest Moniz at the UK Regional Energy Innovation Forum. Photo UK REVEAL Research Media.

Speaking of the benefits of a regional approach to energy management, the Secretary referenced a New York Times Review article by Parag Khana describing how America is reorganizing itself around regional infrastructure lines and metropolitan clusters that ignore state and even national boundaries. The Secretary invited feedback from meeting attendees on the regional partnership program.

<http://www.nytimes.com/2016/04/17/opinion/sunday/a-new-map-for-america.html>

Secretary Moniz also mentioned DOE's Innovation CCS (iCCS) program, noting that this effort is aimed at accelerating the deployment of CCS technologies. DOE is looking to move forward with pilot projects in the 10-50 MW scope utilizing a modular approach to deployment.

The Secretary concluded his remarks noting his commitment to keep pushing the Innovation agenda and inviting NCC members to join in supporting these efforts. If you wonder how the Secretary keeps all these challenges in perspective ~ he has a wonderful sense of humor!





## NCC ACTIVITIES & NEWS

### Update on NCC CO<sub>2</sub> Utilization White Paper

Work has begun in earnest on a white paper requested by **Secretary Moniz** assessing opportunities to advance commercial markets for CO<sub>2</sub> from coal-based power generation. The white paper is focused on profit-generating opportunities for CO<sub>2</sub> utilization, both for Enhanced Oil Recovery (EOR) and for non-EOR applications.

Report Chair, **Kipp Coddington**, Director of the Carbon Management Institute at the University of Wyoming has finalized the study outline and chapter leads have committed as follows:

- A. The Value of Coal ~ Janet Gellici
- B. The CO<sub>2</sub> Utilization Imperative ~ Kipp Coddington
- C. CO<sub>2</sub> Utilization Evaluation Criteria ~ Sarah Wade
- D. Market Review: Geological and Non-Geological Uses of CO<sub>2</sub> ~ Bob Hilton
- E. CO<sub>2</sub> Utilization as an Incentive for CCS/CCUS Deployment ~ Kipp Coddington
- F. Economic Opportunity for Commercial Scale CCS/CCUS Deployment ~ Group

Volunteers are still welcomed to participate. If you are interested in contributing your time and expertise to the report, please contact Janet Gellici at [jgellici@NCC1.org](mailto:jgellici@NCC1.org) or 202-756-4524. The white paper is expected to be completed by late August 2016.



### NCC Chair's Advisory Council Meets with Deputy Assistant Secretary Mohler

Members of the NCC's Chair's Advisory Committee (CAC) met with Deputy Assistant Secretary for Clean Coal & Carbon Management, David Mohler on April 20<sup>th</sup> to discuss DOE's efforts to advance carbon management technologies and markets for coal.

CAC members work with NCC leadership to guide the strategic direction of the Council and also serve as members of the NCC Executive Advisory Board, convened at the request of Secretary Moniz to provide him with more impactful, more timely and more responsive advice.

**For information on joining the CAC, please contact Janet Gellici [jgellici@NCC1.org](mailto:jgellici@NCC1.org).**

**Thank you 2016 CAC members!**





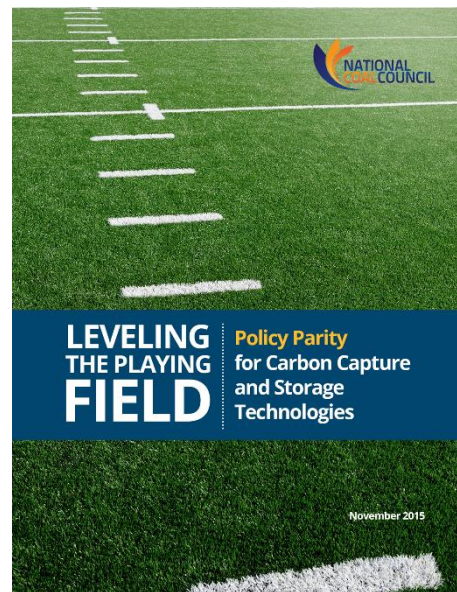
## DOE-Industry Task Group Addresses Recommendations from NCC's Policy Parity Report

On April 20<sup>th</sup>, the Department of Energy hosted a meeting of DOE senior staff and industry representatives to review recommendations from NCC's Policy Parity white paper and discuss prospective actions to implement those recommendations. The meeting was hosted in follow up to a request from Secretary Moniz earlier this year asking NCC to help facilitate such a meeting.

DOE was represented by attendees from the Office of the Secretary, Office of Fossil Energy and Office of Energy Policy & Systems Analysis (EPSA). Industry representatives include coal suppliers, utility and industrial coal consumers, project developers and environmental NGOs.

NCC CEO **Janet Gellici** and Policy Parity report Lead Author **Fred Eames (Hunton & Williams)** provided an overview of recommendations from the NCC report. DOE provided an update on its efforts related to policy parity and financing of CCS/CCUS. Initiatives of other organizations were also presented, including those of the Clean Air Task Force, National Enhanced Oil Recovery Initiative (NEORI), the Coal Utilization Research Council (CURC) and the Carbon Sequestration Leadership Forum (CSLF).

DOE is in the process of preparing a report on the meeting which will be used to help prioritize follow up activities in support of accelerating deployment of CCS/CCUS.



## Check Out the NCC Website

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

If you haven't visited us lately, here's what you're missing.

**EVENTS** ~ NCC's Events Page features the latest information on NCC meetings, including agendas, registration details and sponsorship opportunities.

<http://www.nationalcoalcouncil.org/page-NCC-Events.html>

**PRESENTATIONS** ~ NCC's Meeting Presentations Page features PDF versions of PowerPoint presentations from recent NCC meetings as well as video-taped recordings of the presentations.

<http://www.nationalcoalcouncil.org/page-Meeting-Presentations.html>

**REPORTS** ~ NCC's Studies Page provides access to the full 30+ year history of reports prepared by NCC for the U.S. Department of Energy.

<http://www.nationalcoalcouncil.org/page-NCC-Studies.html>

**MEMBERSHIP** ~ NCC's Membership Page provides a list of NCC members updated regularly.

<http://www.nationalcoalcouncil.org/Members/2016-Membership-Roster.pdf>

Learn more about your fellow NCC members in our member focus section.

<http://www.nationalcoalcouncil.org/NCC-member-focus/04-2016-Coddington.pdf>

**SUPPORT** ~ Find out about government, university and private sector initiatives providing funding and technology assessment support for coal technologies on our Coal Technology Matters Page.

<http://www.nationalcoalcouncil.org/page-Coal-Technology-Matters.html>

## WHO KNEW?\*



In 2014, with the support and encouragement of Governor Matthew H. Mead, the Wyoming State Legislature allocated \$15 million in funding for the design, construction and operation of an integrated test center to study the capture, sequestration and management of carbon emissions from a Wyoming coal fired power plant. An additional \$5 million commitment from private industry was required under the appropriation, which has since been secured from the Tri-State Generation and Transmission Association in addition to \$1 million pledged from the National Rural Electric Cooperative Association. Basin Electric is providing the host site as well as many additional in-kind contributions including engineers and construction management services.



The ITC will provide space for researchers to test Carbon Capture, Utilization and Sequestration (CCUS) technologies using 20 MW of actual coal-based flue gas. Along with testing capture technologies, additional research will look at taking flue gas and turning it into a marketable commodity. The research at the ITC will lead to new opportunities in petrochemicals as well as other commercial uses of carbon dioxide (CO<sub>2</sub>). Research at the facility will help ensure the viability of the coal industry, which supports jobs, local and state economies and keeps electricity prices low for millions of people around the globe.

The ITC is slated to be one of a handful of such facilities around the world and only the second one in the United States. While many carbon capture technologies are being developed and studied in laboratory settings, the ITC will be one of the few research and testing facilities at an operating coal-fired powered plant. Laboratories cannot mimic the real world conditions of a functioning coal-fired power plant. The ITC will allow for real world testing at an active power plant and alleviates typical concerns over being able to transfer technology from a lab to a plant.

In October 2015, Governor Mead announced that the ITC would be built at Basin Electric Power Cooperative's Dry Fork Station near Gillette, Wyoming. The Dry Fork Station is a state of the art coal-fired power plant operated by Basin Electric Cooperative, Powder River Energy's wholesale power provider.

Pre-construction engineering and design work started in 2015, and some equipment installation will occur in March 2016 to take advantage of the power plant's regularly scheduled maintenance shutdown. Additional engineering is ongoing with site preparation and other construction work to begin in the Spring of 2016. The ITC is scheduled to be completed in the Summer of 2017. The Wyoming Infrastructure Authority is managing the pre-commissioning phase of the project.

### Integrated Test Center

<http://www.wyomingitc.org/>

**Tell the whole story. Tell the coal story.**

<http://www.wyomingitc.org/redefining-coal/>

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

## 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

#### More Than 170 Nations Sign Paris Climate Pact

Meeting at United Nations (UN) headquarters in New York, representatives of more than 170 nations signed the landmark climate accord approved in Paris last December. Each signatory will set its own target for reducing emissions and update it annually; the document sets a target of limiting global warming by 2100 to "well below" 3.6 degrees Fahrenheit (2 degrees Celsius) as compared with pre-industrial levels.

The non-binding pact will take effect 30 days after 55 countries accounting for 55% of the world's emissions formally ratify it; according to *Politico Morning Energy*, 36 nations, representing 49% of global greenhouse emissions (GHG), have already ratified it or promised to do so soon. China, the world's largest emitter, said it would take steps to ratify the agreement before September, *Greenwire* reported. The U.S., the second-largest, also indicated it intends to do so later this year; *Climate Change News* suggested this likely would occur through executive order rather than Senate ratification.

Secretary of State John Kerry, signing on behalf of the U.S., said the agreement's power is "[the opportunity it creates ... the message it sends to the marketplace](#)," *The Hill* reported. *The New York Times* said that as the market for clean power technology has grown, the cost has plummeted, and countries are scrambling to adapt their plans. However, the newspaper pointed out, "The pace of adoption would need to rise sharply to meet the broad climate goals."

Additionally, "for all the signs of progress and political will, [new challenges to implementing the accord have arisen just since December](#)," according to *The Times*. Globally, this includes "hundreds of coal-burning power plants still on the drawing board," while in the U.S., the Supreme Court's temporary shelving of President Obama's Clean Power Plan has thrown his domestic climate program into turmoil, *The Times* specified.

Even if the high court ultimately upholds the Plan, it said, "some experts have concluded that Mr. Obama is likely to leave office without establishing policies sufficient to ensure the country will meet the pledge ... to reduce American emissions by 26% to 28% in 2025, compared with their level in 2005."

This confluence of factors means that the goal of limiting warming to 3.6 degrees F above pre-industrial levels "remains far out of reach," *The Times* underscored.

### CLIMATE CHANGE

#### Clean Power Plan Seen Facing "Greatest Challenge"

Upcoming oral arguments in federal court over the Clean Power Plan (CPP), which *The Hill* has dubbed "the centerpiece" of the President's efforts to use executive power to cut generating plants' carbon dioxide emissions, are [the initiative's greatest challenge yet](#), the publication asserted. The U.S. Court of Appeals for the D.C. Circuit is expected to hear oral arguments in June and issue a decision in the fall. Numerous industry groups and 27 states have filed lawsuits against the CPP, contending it oversteps the Environmental Protection Agency's (EPA) authority, while 18 states and multiple private sector groups are backing EPA. The high court has stayed the Plan's effective dates until all legal review is completed. If the justices (currently divided 4-4 with a single vacancy) overturn the rule, or if the GOP prevails in November and a Republican White House scraps the CPP in 2017, it could undermine the President's other major climate achievement, the Paris agreement, *The Hill* noted. "It's a reminder of how fragile Obama's legacy on climate change is," the publication underscored.

**Coal Currents** *(continued)***ENVIRONMENTAL REGULATION****EPA Reaffirms Earlier Conclusion on Mercury Regs**

The Environmental Protection Agency (EPA) has responded to a Supreme Court finding that it failed to adequately consider compliance costs when writing the 2012 Mercury and Air Toxics Standards (MATS) for power plants by [reaffirming its earlier conclusion](#). "A consideration of costs does not cause us to change our determination that regulation of hazardous air pollutants from coal- and oil-fired [power plants] is appropriate and necessary," the Agency's supplemental finding concluded. According to *Greenwire*, EPA stated that MATS' estimated annual benefits are \$37 billion to \$90 billion and compliance costs a projected \$9.6 billion, making the regulation "clearly cost-effective." However, the publication reported, legal scrutiny will continue, as the Supreme Court considers a petition from 20 states, led by Michigan, which argues the rule "should have been scrapped entirely and that a lower court's decision to keep it on the books was illegal." The petition will be considered following the high court's receipt of the Administration's response in early May, *Greenwire* specified. Also on the legal front, *SNL* reported, [Murray Energy pledged to sue EPA over MATS](#) once it is published in the *Federal Register*.

**ENERGY ISSUES****EIA: Power Plants' Coal Use Down 29% From 2007 Peak**

[The consumption of steam coal used to generate electricity in the U.S. power sector has fallen 29% from its peak](#) of 1,045 million short tons (MMst) in 2007 to an estimated 739 MMst in 2015, DOE's Energy Information Administration (EIA) reported. Consumption fell in nearly every state, it indicated, with the largest declines concentrated in the Midwest and Southeast. Six states -- Ohio, Pennsylvania, Indiana, Georgia, North Carolina and Alabama -- accounted for nearly half of the national decline, EIA specified. The Agency's *Power Plant Operations Report* noted that 97% of the nation's steam coal use is for electricity generation, and there was little or no growth in electricity sales in most states between 2007 and 2015; meanwhile, increased availability and lower prices for natural gas spurred growth of this fuel for power generation, while production from wind and solar sources also increased significantly. Specifically, [coal dropped to 29.6% of utility-scale power generation in February, with natural gas accounting for 31.3%](#) and renewables for 17% of the total energy mix, *Platts* reported.

**DOE DEVELOPMENTS****Moniz Seeks Council Report on New Markets for CO2**

The Administration is commencing "a last-ditch effort" to make clean coal a climate change solution, with commercialization of carbon capture a central element, Energy Secretary Ernest Moniz said during the National Coal Council's Spring Meeting. Moniz told the Council that without this technology, meeting global climate goals "will cost roughly 140% more than with it," the *Washington Examiner* reported. Accordingly, NCC chief executive Janet Gellici indicated, [the DOE chief asked the Council to prepare a report identifying new markets for carbon dioxide](#), helping to offset capture costs. She specified that Moniz is most interested in markets not dependent on oil, such as those for enhanced water recovery, and the marketing of carbon dioxide (CO<sub>2</sub>) as an agent to produce valuable minerals is also to be included in the study, the *Examiner* said. Separately, the Secretary told the *Lexington Herald-Leader* that [despite its commitment to cutting carbon emissions, the Administration does not advocate coal's demise](#). If the White House wanted to kill coal, he emphasized, it wouldn't have put \$6 billion into carbon capture and storage (CCS) in its budget submittal.

**Low Gas Prices****Endangering Operation of Coal, N-Plants**

According to Moody's Investor Services, "persistently low natural gas prices" are endangering the continued operation of several coal and nuclear power plants, *SNL* reported. The ratings service noted that plants belonging to merchant generators, which are "scrambling to cut costs" in light of low gas prices, may be particularly vulnerable. The news organization pointed out that "low natural gas prices have devastated most of the U.S. merchant power sector because gas-fired power plants often serve as the marginal plant during times of peak power demand." *SNL* spotlighted Moody's belief that "If the current natural gas price environment of \$2/MMBtu to \$3/MMBtu does not improve in the next 12-18 months, [there could be more large-scale coal and nuclear plant closures, with coal units at greatest risk](#)." This situation particularly applies in regions without a forward capacity market, such as the Electric Reliability Council of Texas and the Midwest Independent System Operator," it specified.

**Coal Currents** *(continued)***MINING & TRANSPORTATION****2015 Was the Safest Year  
in Mining History, MSHA Reports**

[Calendar year 2015 was the safest in mining history, in terms of number of deaths and fatal- and all-injury rates alike](#), the Mine Safety and Health Administration (MSHA) has reported. The Labor Dept. unit said that 28 miners died in mining accidents during the year, down from 2014's 45. The fatal injury rate for coal mining, expressed as reported injuries per 200,000 hours worked, was 0.0121, the lowest rate ever. Meanwhile, coal mining's all-injury rate, reported by mine operators, fell to a new low of 2.28 in 2015, the first time it dropped below 3.0. MSHA pointed out that even accounting for a decline in the number of mines in 2015, compliance improved, demonstrated by an 11% reduction in the number of citations and orders issued. "The progress we made in 2015 is good news for miners and the mining industry," said Joseph A. Main, Assistant Secretary of Labor for MSHA. "It is the result of intensive efforts by MSHA and its stakeholders," he added.

**INTERNATIONAL INTEREST****China to Delay or Halt  
Construction of Some Coal Plants**

Confronting slow economic growth and falling electricity demand, China has issued [guidelines that halt plans for new coal-fired power plants in many areas of the country, and delay the construction of some plants that already have been approved](#) until at least 2018. According to *The New York Times*, the National Development and Reform Commission's action means that about 200 planned coal-fired plants, aggregating about 105 gigawatts of power -- "considerably more than the electricity-generating capacity of Britain from all sources" -- may not be completed. At the same time, about 190 GW of projects already under construction will be finished, *The Times* said; China is adding about 1 GW in coal-fired capacity per week, it specified. In contrast, the publication reported, about 14 GW of coal-fired capacity was retired in the U.S. last year, while only six new coal-fired plants, aggregating less than 2 GW, are expected to be added in at least the next five years.

**DOL Revises Regs  
to Implement Black Lung Benefits Act**

The Labor Dept. has issued a final rule significantly revising the regulations to implement the Black Lung Benefits Act, aimed at strengthening safeguards for the health of coal workers. According to DOL, the rule, published in the *Federal Register* by the Office of Workers' Compensation, will give miners greater access to their health information, boost the accuracy of claims decisions, and require coal mining companies to pay all disability or survivors benefits due in a claim before modification can challenge the award. Parties that fail to share any medical data they develop about a miner are subject to sanctions, DOL added. "[This rule makes clear that coal miners have a right to know the full picture of their health](#)," said Leonard Howie, the office's director. "I am confident that these changes will bring transparency and improve claims safeguards for our nation's coal miners."

**World Bank Chief Emphasizes Climate Change Efforts**

In the face of worldwide plans for the construction of "hundreds of carbon-intensive energy plants," [the World Bank is working "to make renewables cheaper than coal and push forward efforts to mitigate the effects of climate change"](#), President Jim Kim indicated. The Bank, which *Climate Change News* identified as the world's top lender to developing countries, recently announced it would spend 28% of investments on climate-related projects by 2020. At the same time, the publication reported, outside groups accused the institution of providing more than \$2 billion to oil, gas and coal projects and called for it to stop such loans. However, a Bank spokesperson said it had not funded any greenfield coal projects for the past five years. Countries in Asia and Africa are among those with plans to build an estimated 1,500 power stations, *Climate Change News* said. However, it added, Bank officials "are believed to be discussing a complete ban on new coal investments."

**Coal Currents** (continued)**IN THE INDUSTRY****Lab to Test Ways to Remove, Use Carbon From Emissions**

A public-private partnership has broken ground on an industrial-scale laboratory, the Wyoming Integrated Test Center (ITC), that will [allow researchers to test innovative methods for removing, utilizing and sequestering carbon emissions from coal-fired power plants](#). The emissions could be used to make diesel fuel, cement, advanced polymers and other products, PennEnergy noted, helping offset the cost of preventing carbon dioxide (CO<sub>2</sub>) from entering the atmosphere. "As things stand now," the publication noted, "carbon-capture technology typically is too expensive to keep coal-fired power competitive with wind and solar power." The test facility will use flue gas from Basin Electric Power Cooperative's 422-megawatt Dry Fork Power Station. The ITC partnership also includes Tri-State Generation and Transmission Assn., NRECA and the State of Wyoming, as well as the NRG COSIA Carbon XPRIZE. The latter will use the facility for the final phase of its \$10 million carbon competition, which will award prize money to the developer of the most successful new technology for transforming coal-based fuel gas into a commercial product.

**DULY NOTED****Columnist Pans Efforts to Enforce "Groupthink" on Climate**

Conservative columnist George Will has denounced the desire of what he termed "enlightened progressives" to enforce limits on speech "in order to prevent thinking unhelpful to history's progressive unfolding." Will's specific target is the Democratic Party's "campaign to criminalize debates about science," specifically climate change. He reviews the undeniable fact of a changing climate over the centuries, and sets out a series of questions for debate, including the extent to which human activity is contributing to the phenomenon and whether climate change models are reliable enough to predict the trajectory of change. Will also cites a pair of officials for criticism: New York Attorney General Eric Schneiderman, who "dismisses those who disagree with him as 'morally vacant,'" and Rhode Island Sen. Sheldon Whitehouse, who suggests using [a statute written to fight organized crime to criminalize what he calls the fossil fuel industry's 'climate denial apparatus.'](#) Such officials "are eager to regulate us into conformity with the 'settled' consensus du jour, whatever it is," the columnist notes. "But they are progressives, so it is for our own good."

**Todd H. Cunningham, who writes the "Coal Currents" column for the Council's monthly newsletter, 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).**