

**NCC MEETS WITH NEWLY APPOINTED
DOE FOSSIL ENERGY PDAS**

Douglas Hollett

On May 26th, NCC CEO **Janet Gellici** and NCC and Chair's Advisory Council member **Sheila Glesmann** (ADA Carbon Solutions) met with Principal Deputy Assistant Secretary for Fossil Energy, **Douglas Hollett** and NCC's DOE liaison **Dan Matuszak**.

Hollett replaced **Julio Friedmann** who returned to the Lawrence Livermore Lab earlier this year. In his position in the Office of Fossil Energy, Hollett is responsible for 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. Hollett is second in command to Assistant Secretary **Christopher Smith**.



Gellici and Glesmann provided Hollett with an introduction to the National Coal Council, including an overview of our objectives, membership and meetings. We discussed NCC's recent reports for the Secretary and provided an update on the CO2 Utilization white paper currently being developed. NCC looks forward to working with PDAS Hollett.

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

**HOLD THE DATES FOR NCC FALL 2016 MEETING
OCTOBER 4-5 – MILWAUKEE, WI**



Final details are being made to host the NCC 2016 Annual Fall Meeting in Milwaukee, Wisconsin. Our tentative schedule:

Oct. 4 p.m. – Welcoming Reception
Oct. 5 a.m. – Full Council Meeting
Oct. 5 p.m. – Tour of We Energies' Oak Creek Supercritical Plant

Details to follow soon!

NCC LEADERSHIP

Mike Durham, NCC Chair

Principal, Soap Creek Energy

Greg Workman, Vice Chair

Director Fuels
Dominion Resources

Deck Slone, Coal Policy Chair

Sr. VP Strategy & Public Policy
Arch Coal

Bill Brownell, Esquire

Vice Chair Coal Policy
Chair, Hunton & Williams

Executive Committee

Ted Doheny, President & CEO

Joy Global

George Duggan, VP Coal

BNSF Railway

Michael Jones, VP R&D

Lignite Energy Council

David Lawson, VP Coal

Norfolk Southern Corporation

Lisa J.N. Bradley, PhD, DABT

Vice President/Sr. Toxicologist
Haley & Aldrich

Mike Sorensen, Sr. Mgr. Fuel

Tri-State G&T

Scott Teel, VP Fuel Services

Southern Company

Kemal Williamson

President Americas
Peabody Energy

Ex Officio

Joe Craft, III, President

Alliance Coal

John Eaves, President & CEO

Arch Coal

Joe Hopf, Senior VP & CCO

Talen Energy

Jeff Wallace, CEO

Bahamas Power & Light

Finance Committee

Chair ~ **Gregory Workman**

Communications Committee

Chair ~ **Lisa J.N. Bradley**

NCC Staff/Support

Janet Gellici, NCC CEO

Hiranthie Stanford

Director Membership & Meetings

Karen Bennett, Legal Counsel

Hunton & Williams

NationalCoalCouncil.org

1101 Pennsylvania Ave. NW

Ste. 600

Washington, DC 20004

(202) 756-4524



Keeping our NCC community informed of news from our members.

NCC members are invited to submit news items regarding their companies and organizations to Janet Gellici at info@NCC1.org.

Chris Jenkins, CSX Transportation

Congratulations on Your Pending Retirement

www.csx.com

Congratulations to **Chris Jenkins**, Vice President Coal at **CSX Transportation** who will be retiring on July 1st. Chris has been a tremendous supporter of the National Coal Council since his appointment in 2001. He served for many years as a member of the NCC's Executive Committee providing leadership and guidance on issues related to coal rail transportation. We wish Chris all the best in his retirement ~ ENJOY!

Send your regards to Chris_Jenkins@CSX.com.

Sharon Sjostrom, Advanced Emissions Solutions

ADA-ES Mercury Technology Selected

www.adaes.com

<http://finance.yahoo.com/news/large-utility-selects-ada-r-184131143.html>

Marketwired reported that Advanced Emissions Solutions' ADA-ES subsidiary has been selected to install the company's M-Prove™ Technology at a large coal utility to meet mercury emissions compliance standards. Sharon commented that the patented technology moves beyond compliance, providing the plant with optimized operations and cost reductions.

IN MEMORIAM

Ben Hatfield

[Hatfield Obituary](#)

Former NCC member and Patriot Coal CEO **Ben Hatfield**, died suddenly and tragically on May 22, 2016. Ben was a devoted advocate for the coal industry and will be greatly missed. NCC extends its condolences to Ben's family, friends and colleagues.

DEPARTMENT OF ENERGY PERSONNEL UPDATE

Robert Wright

NCC Liaison Retires

bob@twg-llc.org

Robert (Bob) Wright, Senior Advisory and NCC's DOE Liaison in the Office of Fossil Energy at DOE retired the end of April 2016. NCC was delighted that Bob was able to attend our 2016 Spring Meeting where he was acknowledged by NCC Chair **Mike Durham** for his years of service in support of the NCC. Bob has launched an energy and environmental solutions consulting practice ~ The Wright Group LLC ~ and can be reached at 301-807-8261.

Dr. Daniel Matuszak, Senior Energy Analyst, Fossil Energy

Welcome New NCC-DOE Liaison!

Daniel.Matuszak@hq.doe.gov

NCC would like to officially welcome **Dan Matuszak** as the new DOE liaison to the NCC. Dan has been engaged with the NCC since the fall of 2015 but has just recently officially assumed his liaison responsibilities following Bob Wright's retirement. Look forward to working with you, Dan!

COAL RESOURCES

U.S. 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/b
rowser](http://www.eia.gov/coal/data/browser)

Divesting from Fossil Fuel
Firms May Cost Colleges \$\$
[Washington Examiner](#)

Texas Fight Demos How
Conflicted We Are About
Clean Coal
[Washington Post](#)

Program that Leases Coal
Should Continue
[Hal Quinn NMA Editorial -
Knoxville Sentinel](#)

Future CO2 Emissions
Depend on Status of CPP
[EIA 5-18-16](#)

Exxon Has a Clever Way to
Capture Carbon-If It Works
[MIT Technology Review](#)

US EIA's International
Projections Ignore Paris
[Morning Consult](#)

What the Hughes v. Talen
SCOTUS Decision Means for
State Power Incentives
[Utility Dive](#)

Former Air Chief's Warning
About EPA
[Washington Examiner](#)

Moniz: Leg Action Needed
for Long Term Climate
[GHG Daily Monitor](#)

Carbon Pricing a Cause for
World Bank & IMF
[New York Times](#)

Cornerstone Magazine
[Spring 2016 Issue](#)

National Coal Council
NationalCoalCouncil.org

NCC Member Focus

While new to the NCC, Deck Slone is a veteran of the U.S. coal industry, as well as an energetic and well educated advocate for coal. And he manages all that while being one of the most gracious guys in the business. Lucky for us, Deck is now serving as Chair of the NCC Coal Policy Committee. Thanks for your support, Deck!

Deck Slone is Arch Coal's Senior Vice President of Strategy and Public Policy. In this capacity, Deck has senior responsibility for strategy formation and energy market analysis; government affairs and corporate communications; and coal technology and related investments.

Deck has served as a member of Arch's senior officer team since 2008 and as an officer of the corporation since 2001. Prior to assuming his current duties, he held the position of Vice President for Government, Investor and Public Affairs. He started his career at Ashland, Inc. and joined Arch Coal at the time of its formation in 1997.

In addition to his duties at Arch, Deck is co-chair of the Coal Utilization Research Council (CURC), as well as Chair of the Coal Policy Committee of the NCC. In addition, he serves as a strategic adviser to the board of Millennium Bulk Terminals-Longview, a bulk material port in Washington State.

Deck also serves on the steering committee of the Consortium for Clean Coal Utilization and on the advisory committee of the McDonnell International Scholars Academy, both at Washington University of St. Louis. He is a former director and member of the Executive Committee of the World Coal Association and a past co-chair of both the policy and communications committees of the American Coalition for Clean Coal Electricity.

Deck earned a bachelor of arts degree from Vanderbilt University in Nashville, Tennessee and a master's of business administration from Washington University in St. Louis.



DECK S. SLONE
SENIOR VICE PRESIDENT
STRATEGY & PUBLIC POLICY
ARCH COAL, INC.

U.S.-based Arch Coal is a leading coal producer and marketer, with 128 million tons of coal sold in 2015. The company's core business is supplying cleaner-burning, low-sulfur thermal and metallurgical coal to power generators and steel manufacturers.

Arch is the most diversified American coal company with large, low-cost mining complexes and high-quality reserves in each of the major U.S. coal supply basins. In total, Arch represents over 13% of America's coal supply from its active [mining complexes](#) in Wyoming, Colorado, Illinois, West Virginia, Kentucky and Virginia.

Arch Coal was formed in July 1997 through the merger of publicly traded Ashland Coal, Inc. and privately held Arch Mineral Corporation. Arch Mineral had its origins in 1969, when it was formed as a partnership between Ashland Oil (now Ashland Inc.) and the Hunt family of Dallas, Texas; Ashland Coal was formed in 1975 as a wholly owned subsidiary of Ashland Oil. With the completion of the merger, Arch became the leading producer of low-sulfur coal in the eastern United States.

Deck Slone
Arch Coal, Inc.
One CityPlace Drive, Suite 300
St. Louis, MO 63141
314-994-2700
dslone@archcoal.com
www.archcoal.com



NCC ACTIVITIES & NEWS

NCC CO2 Utilization White Paper Advances

Work continues in earnest on a white paper requested by **Secretary Moniz** assessing opportunities to advance commercial markets for CO₂ from coal-based power generation. The white paper is focused on profit-generating opportunities for CO₂ utilization, both for geologic applications, such as enhanced oil recovery (EOR), enhanced water recovery (EWR) and enhanced coal bed methane (ECBM), and for non-geologic applications, such as fuels, fertilizers, building materials, plastics, inorganic chemicals and specialty chemicals.

The NCC report appears especially timely in light of recent initiatives at the U.S. Department of Energy. Most notably, DOE recently issued a Request for Information (RFI) on technologies for beneficially using CO₂ captured from fossil fuel power plants. DOE is considering more significant support for research and development (R&D) in carbon use to complement existing efforts to develop, demonstrate and deploy carbon capture technologies. The RFI states the ability to beneficially use CO₂ from fossil fuel plants “has the potential to accelerate deployment of carbon capture by providing a market for captured CO₂ in the near term, and in the longer term, to offset some of the cost of capturing and storing much larger quantities of CO₂ from electric power generation and other industrial sources.” For more information on the RFI: <https://www.fedconnect.net/fedconnect/?doc=DE-FOA-0001551&agency=DOE>

CO₂ utilization has also been making headlines lately. A May 2nd article in the New York Times called attention to efforts underway to recycle CO₂ for various applications, including turning it into a new fuel. Most are wrangling with issues associated with the cost and energy requirements of conversion technologies. <http://www.nytimes.com/2016/05/03/science/carbon-dioxide-recycling.html>

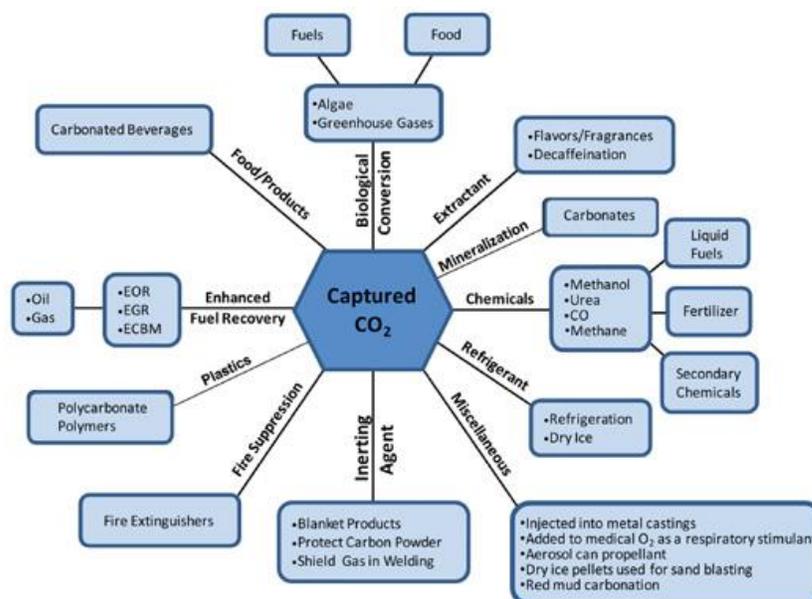
NCC has assembled a stellar crew of experts to respond to the Secretary’s request, headed by Report Chair, **Kipp Coddington**, Director of the Carbon Management Institute at the University of Wyoming. Initial drafts of the various chapters are being written in the next few weeks. Once completed in early August, a penultimate draft of the report will be reviewed in depth by the NCC Coal Policy Committee. The Committee’s edits will be incorporated into a final draft and distributed to all NCC members for review. NCC will be hosting a webcast Full Council Meeting in late August for members to consider approval of the report. The report is slated to be provided to Secretary Moniz by August 31, 2016.

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 or 202-756-4524.

CO₂ Utilization

Source:

www.netl.doe.gov/research/coal/carbon-storage/research-and-development/co2-utilization





ENERGY SUBCOMMITTEE OVERSIGHT HEARING ON DOE FOSSIL ENERGY

On May 11th, NCC CEO **Janet Gellici** attended a hearing of the Energy Subcommittee of the House Committee on Science, Space & Technology convened for the purpose of addressing issues related to DOE's Office of Fossil Energy budget. The sole witness was the Honorable **Chris Smith**, Assistant Secretary for Fossil Energy. In his opening remarks, and opportunities for the fossil energy noting the \$31 million increase in the

Assistant Secretary Smith addressed new challenges industry, emphasizing the need for innovation and Office of Fossil Energy's core budget.



In his opening statement, noted that the DOE FY2017 budget fossil energy technology RD&D, citing a \$1.2 billion increase in funding for renewable number of members of the House Committee commercial-scale CCS projects, citing recent project cancellations and cost overruns. They suggested that DOE focus on early stage R&D and technology innovation and leave commercialization of technologies to the private sector.

subcommittee chair Randy Weber (R-TX) does not reflect what should be a priority on \$32 million decrease in FE's budget versus a energy. Congressman Weber, along with a questioned the need for DOE to be involved in

In his response, Smith noted that absent an incentive or mandate to reduce CO₂ emissions, industry would not unilaterally undertake efforts to deploy carbon reduction technologies.

[Video recording of Energy Subcommittee Hearing 5-11-16](#) ~ [Exchange Monitor Report on Hearing 5-11-16](#)

THANK YOU CHAIR'S ADVISORY COUNCIL MEMBERS

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 with more impactful, more timely and more responsive advice.

For information on joining the CAC, please contact Janet Gellici jjgellici@NCC1.org



ACC Produces Coal Communications Kit

The American Coal Council's Tomorrow's Leadership Council recently developed a Coal Communications Kit to help coal advocates educate, inform, build bridges and counter misinformation about coal. The document provides ideas and information that coal industry employees and others can use to improve communications and relations with others in the public realm.

[ACC Coal Communications Kit](#)



Lessons for Technology Development for Energy & Sustainability

A recent Electricity Policy (www.electricitypolicy.com) post referenced an article by University of Cambridge Professor M.J. Kelly entitled "Lessons from technology development for energy and sustainability." The post notes that Professor Kelly's paper "challenges the thrust of what he believes many nations to be attempting: a heavy reliance on renewable energy to achieve their climate goals."

ElectricityPolicy.org has noted that the thoughtful paper makes serious criticisms that warrant a response and has invited the submission of blogs and papers in response.



UNIVERSITY OF CAMBRIDGE



Advancing materials. Improving the quality of life.

The article, published in the Materials Research Society's Review Journal (www.mrs.org/energy-sustainability-journal), notes that there are lessons from the recent history of technology introductions that should be assessed when considering alternative energy technologies for CO₂ emission reductions. The paper's abstract reads as follows:

The growth of the ecological footprint of a human population about to increase from 7B now to 9B in 2050 raises serious concerns about how to live both more efficiently and with less permanent impacts on the finite world. One present focus is the future of our climate, where the level of concern has prompted actions across the world in mitigation of the emissions of CO₂. An examination of successful and failed introductions of technology over the last 200 years generates several lessons that should be kept in mind as we proceed to 80% decarbonize the world economy by 2050. I will argue that all the actions taken together until now to reduce our emissions of carbon dioxide will not achieve a serious reduction, and in some cases, they will actually make matters worse. In practice, the scale and the different specific engineering challenges of the decarbonization project are without precedent in human history. This means that any new technology introductions need to be able to meet the huge implied capabilities. An altogether more sophisticated public debate is urgently needed on appropriate action that (i) considers the full range of threats to humanity, and (ii) weighs more carefully both the upsides and downsides of taking any action, and of not taking that action.

It's an interesting read with some very thought-provoking concepts. What do you think?

[MJ Kelly on Lessons from Technology Development for Energy & Sustainability](#)

**Williamson College Offers
Industry Short Course:
Introduction to Large
Thermal Power Generation**



**WILLIAMSON
COLLEGE of the TRADES**
Founded 1888

Located just outside of Philadelphia, PA, the Williamson College of the Trades is a men's junior trade college offering full scholarship education in various trade sectors, including power plant technology. Through operation of the college's power plant and maintenance of its utilities, students gain practical experience preparing them for positions in the power and utility industries.

On July 12-14, the College is offering a 3-day continuing education course that focuses on large, field-erected steam generators with a 500,000 to 7 million pounds per hour steam-generation rating. The course includes tours of three local power plants (Exelon's Eddystone Plant, Cogentrix's Logan Coal Plant and NextEra's CTCC Plant) as well as Williamson College's very own Energy Island.

The course is geared for engineers, managers and technicians, new utility and IPP employees and anyone with an interest in learning the basics of modern fossil power production. 16 Professional Development Hours.

<https://www.williamson.edu/2016/04/introduction-to-large-thermal-power-generation-plants-july-12-14/>

WHO KNEW?*



DOE's National Energy Technology Lab (NETL) launched the University Coalition for Fossil Energy Research (UCFER) on May 11, 2016. Pennsylvania State University was selected as the lead institution for the Coalition which will bring together a multi-disciplinary team of researchers from participating universities to address the fundamental research challenges that impede advancement of fossil energy-based technologies.

Research performed by UCFER members will directly support the Office of Fossil Energy's Coal and Oil and Gas programs by focusing efforts in a variety of pertinent areas that include, but are not limited to, advanced energy systems, CO₂ capture and storage, natural gas resources and infrastructure, and onshore and offshore oil and gas technology. The Coalition will facilitate basic and applied energy research and promote multi-disciplinary collaboration among the member universities and NETL.



Founding Coalition member universities include the Massachusetts Institute of Technology (MIT), Princeton University, Texas A&M University, University of Kentucky, University of Southern California, University of Tulsa, University of Wyoming and Virginia Polytechnic and State University. Members of the Coalition will actively seek industry participation in research projects and promote technology transfer to the private sector.

The Coalition's Director will be Dr. Chunshan Song, Distinguished Professor of Fuel Science and Professor of Chemical Engineering at The Pennsylvania State University. Dr. Song is also Director of the EMS Energy Institute and Associate Director of the Penn State Institutes of Energy and the Environment. Dr. Song is a pending member of the National Coal Council and is engaged in working on the NCC's CO₂ Utilization white paper for Secretary Moniz.

DOE is providing \$20 million to support the UCFER effort.



University Coalition for Fossil Energy Research (UCFER)

[News Release on Formation of UCFER](#)

***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.

CLIMATE CHANGE

Parties Begin Work on Paris Climate Pact Implementation

Participants in the first United Nations (UN) meeting on implementing last December's landmark Paris climate accord indicated it could take two years to craft the details for a sweeping shift from fossil fuels, Reuters reported. The Paris document set a target of limiting global warming by 2100 to "well below" 3.6 degrees Fahrenheit (2 degrees Celsius) as compared with pre-industrial levels, and the talks in Bonn tackled the technical work of filling in details left vague, including "how countries will report and monitor their domestic pledges to curb greenhouse gas emissions and adapt to changes such as more floods, storms, desertification and rising seas," the news service noted. No unexpected problems with the Paris text came to light, and Reuters said many countries believe it could enter into force this year or next, following formal ratification by at least 55 nations accounting for 55% of global emissions. *Greenwire* previously reported that China, the world's largest emitter, said it would ratify the agreement before September, while the U.S., the second-largest, also indicated it intends to do so, likely through executive action rather than Senate ratification, later this year.

Court Sets Details for Hearing Challenges to Clean Power Plan

The U.S. Court of Appeals for the D.C. Circuit has announced changes in its consideration of challenges to the Environmental Protection Agency's (EPA) Clean Power Plan (CPP), deciding that the full court rather than a three-judge panel will hear oral arguments in the case, and moving the hearing from early June to late September. Some parties have suggested this change could actually expedite the hearing process, as the losing party in the now-skipped panel hearing would likely have appealed for an en banc rehearing. *Utility Dive* noted that while supporters of the CPP believe that the full-court hearing will benefit the White House-backed measure -- 7 of the court's 11 judges were appointed by Democratic presidents -- opponents assert the move could signal the judges feel the issues presented are so significant they all must weigh in. More than 25 states and numerous industry groups have taken EPA to court, and the publication quoted West Virginia Attorney General Patrick Morrisey as saying the decision "confirms our long-held view that the Power Plan is an unprecedented and transformative rule of a kind the states have never seen from EPA."

Demise of CPP Could Give Coal "Bit of Boost," WV AG Says

West Virginia Attorney General Patrick Morrisey, who is leading the coalition of states opposing EPA's Clean Power Plan (CPP) in federal court, said that stopping the regulation would help stem the U.S. coal industry's decline. "While I don't think coal will come back to its previous, highest levels, I do think there is an opportunity for some form of comeback." Morrisey told a gathering at Washington, D.C.'s National Press Club, *The Hill* reported. He also recommended that states now writing CPP implementation plans should stop these efforts while a Supreme Court stay remains in effect. "A stay is a stay, and people should put their pencils down," the attorney general underscored. Morrisey further called on EPA to stop responding to requests for information from states and companies during the stay, *ClimateWire* said, suggesting that the Agency is "using this technical assistance in order to advance their agenda." He acknowledged that the presidential election could play an important role in the Plan's future, with a GOP victory in November perhaps providing "an opportunity to withdraw these EPA regulations," *The Hill* said, giving coal "a little bit of the boost it really needs."

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.

To discuss your editorial needs, contact Todd via email at tcunningham03@comcast.net.

Coal Currents *(continued)***ON CAPITOL HILL****WV's Manchin Blasts Outsiders for Distorting Record on Coal**

Sen. Joe Manchin (D-W.V.), who is running for re-election in 2018, is blasting "D.C. lobbyists and out-of-state billionaires" for attacking his record and [trying to mislead the state's voters about what he terms a long and successful record of "taking on the EPA and standing up for coal,"](#) *The Hill* reported. The publication cited a new ad by the conservative Judicial Crisis Network accusing Manchin of "siding with Washington liberals, [in] helping confirm Obama's Supreme Court nominee, a liberal who will limit your right to bear arms, crush the coal industry," in contrast to the state's attorney general, Republican Patrick Morrisey. The West Virginia Coal Association has been pushing Manchin to reject President Obama's controversial Supreme Court nominee, Merrick Garland, for what it says is a record of generally supporting contested EPA regulations since he became a judge on the U.S. Court of Appeals for the D.C. Circuit, *The Hill* said. Manchin, who talked with Garland earlier this year, recently cited "real concerns" about the judge and said he would vote against the nominee if they disagreed on policy.

PRIMARY CONCERNS**Climate, Coal Prominent in Trump's "America First" Energy Plan**

Donald Trump, the presumptive Republican presidential candidate, has outlined what he called an "America First" energy policy, including cancellation of the Paris climate agreement and rescission of President Obama's climate change rules. *The New York Times* indicated that experts question the billionaire's promise to restore jobs lost in coal mining, which "essentially defy free-market forces," and his pledge to rescind Environmental Protection Agency (EPA) regulations to curb emissions from coal-fired power plants, which are now being litigated in federal courts. However, the newspaper said, "[Mr. Trump's threats to unravel the Paris Agreement could carry more weight,](#)" either by withdrawing from the pact before it is ratified, if this has not happened by January 2017, or by simply not following through on the Obama Administration's pledge to cut emissions up to 28% from 2005 levels by 2025. There would be no legal consequences to such a course of inaction, *The Times* specified. "In an even more potent threat," the article continued, "Mr. Trump declared that the United States would 'stop all payment of U.S. tax dollars to global warming programs,'" which could impact other countries' ability, or will, to cut emissions.

BY THE NUMBERS**U.S. Carbon Dioxide Emissions Tumble to Lowest Level Since 1993**

[U.S. carbon dioxide emissions totaled 1,925 metric tons in 2015, 21% below their 2005 level and the lowest since 1993,](#) the Energy Information Administration (EIA) reported. The Energy Department statistical unit indicated that a shift in the electricity generation mix, with natural gas and renewables displacing coal-fired power, was behind the drop in emissions. EIA noted that total carbon dioxide (CO₂) emissions from the electric power sector declined while electricity demand remained relatively flat over the previous decade. In recent years, the DOE unit pointed out, the drop in natural gas prices, coupled with highly efficient natural gas-fired combined-cycle technology, made gas an attractive choice to service base load demand previously met by coal-fired generation. Meanwhile, EIA said, coal-fired generation decreased, both because of economics driven by cost per kilowatt-hour compared to that of natural gas, and because of the effects of increased regulation on air emissions.

Sanders Solidly Bests Clinton in Host of Coal Country Primaries

While Bernie Sanders is running behind Hillary Clinton in the race for the Democratic presidential nomination, "there's one unlikely place he's beating her: coal country," according to McClatchy's DC Bureau. While Sanders has been outspoken in his support for policies to address climate change, it said, [Clinton's remark about putting "a lot of coal companies and coal miners out of business" has continued to resonate;](#) while she has won states such as Kentucky, Pennsylvania and Illinois, Sanders has won almost all of their coal-producing areas, as well as every county in West Virginia. And while coal's decline has economic underpinnings such as an abundance of low-priced natural gas, coal country has placed the blame almost entirely on the President's environmental policies, and Clinton is the Administration's public face in many respects, a United Mine Workers (UMW) official said. While both Democratic contenders support efforts to save the pensions of bankrupt coal companies' miners, it is unlikely that Clinton, who is favored to win the nomination, will defeat Republican Donald Trump in coal country come November, McClatchy said. Miners are "not going to vote for Hillary," a mine-safety attorney told the news service.

Coal Currents *(continued)***MINING & TRANSPORTATION****Greens Give Japan Failing Marks on Coal Projects, Financing**

An environmentalist group's survey ranked Japan, with more than 25 gigawatts (GW) of new coal capacity planned or under development, last among the Group of Seven (G7) industrialized countries in efforts to phase out coal-fired power generation. E3G, a non-profit group promoting a low-carbon economy, put the U.S. in the lead, with France and the U.K. tied for second, Bloomberg reported. The news service noted that [resource-poor Japan has increased its reliance on fossil fuels, including coal, since the 2011 nuclear disaster at Fukushima](#). To address concerns about global warming, it reported, Japan says it is pursuing development of technologies that would lead to less-polluting coal-fired plants along with carbon capture and storage (CCS). Separately, Bloomberg reported that [the Asian country was the leading source of international coal financing among the G7 for the nine years ending in 2015, accounting for \\$22 billion](#) of the \$42 billion in loans, guarantees and technical assistance for coal power, mining and related projects provided by member nations. According to a report compiled by green groups, Germany followed with \$9 billion in support, while the U.S. was third with \$5 billion.

MINING & TRANSPORTATION**Senators Offer Interior Secretary Strong Advice on Coal Leasing**

Fourteen (14) Democratic senators have written Interior Secretary Sally Jewell to ask that [the Interior Department's current review of the federal coal leasing program reconsider the pricing and sales of coal leases and take into consideration the climate change impacts of burning coal over time](#). The lawmakers recommended that the process be guided by "three imperatives": 1) Get the science right. "We strongly believe that the United States cannot continue to lease coal without taking into account that it is the most significant source of power sector greenhouse gas emissions," the Senators wrote. 2) Reconsider the government's market role. "The fact that 90% of federal lease sales since 1990 had single bidders suggests that western coal markets are structurally non-competitive," the Senators asserted. "No law requires the BLM to sell coal as requested and nearly at cost, turning the government into the supplier of first resort." 3) Reconsider how to balance multiple uses over time. "A huge disparity exists between the high, long-term costs of burning the public's coal and the low short-term return from selling it," the Senators stressed. "The BLM needs to address the disparity."

DULY NOTED**Dragline Wrapping Up 30-Year Stint in WV; Morocco May Beckon**

Big John, the 8-million pound, 18-story high dragline that has played a significant role in West Virginia's coal industry in the past three decades, "will soon be turned off for the final time on top of a Boone County mountain," WV Metro News reported. The machine, which has worked at the former Hobet 21 surface mining site, clearing the overburden so the thin seam of coal could be removed, will be idled following the completion of mining and reclamation. "[Much of this mountain could not have been mined had it not been for that dragline](#)," site owner ERP Compliant Fuels CEO Ken McCoy told WV Metro News. "For 32 years, seven days a week, we've seen that machine move and finally it's out of places to mine and it will be parked." While the state hopes to market the reclaimed land for economic development, the publication said, Big John may also have another life. "We had a company in from Morocco that are phosphate miners that have a desire to perhaps buy it, take it to Morocco and perhaps it will live again," McCoy said. "We certainly hope so."

Chinese Coal Prices to Soar as Output Drops More Than Demand

[Coal prices in China may rise 20% by year's end as government efforts to reduce production exceed drops in demand](#), Bloomberg reported. According to a Citigroup analysts' report, the news service said, the government has asked domestic mines to cut output 16% and to reduce operating days from 330 days annually to 266. The article added that China's raw coal production may fall by 9% this year, more than offsetting a 3.4% decrease in demand; China plans to shut 900 million tons of production capacity -- about 9% of its total -- within five years, the state council indicated earlier this year, Bloomberg says, "as it shifts toward consumer-led growth and tries to curb pollution." Separately, Reuters said, [China will reduce the amount of coal burned directly in industrial furnaces and residential heating systems, which now accounts for 700 to 800 million tonnes annually, in an effort to cut down on smog](#). The country's National Energy Administration said it will replace this direct burning with electricity; coal now accounts for about 64% of China's primary energy needs and three-quarters of its total power generation, Reuters reported.