



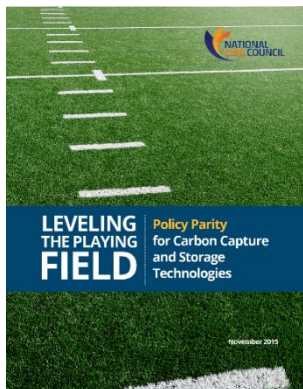
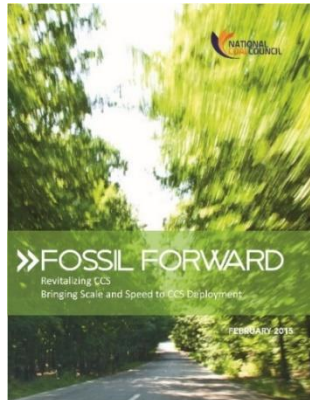
NATIONAL COAL COUNCIL ~ DECEMBER 2015

THE NATIONAL COAL COUNCIL IN 2015

It was a very productive year for the National Coal Council in 2015. Most notably, we issued two reports for Secretary Moniz:

[Fossil Forward - Revitalizing CCS: Bringing Scale & Speed to CCS Deployment](#) (January 2015)~

assessing the value of the Department of Energy's Carbon Sequestration Program. The study addressed the question: What is industry's assessment of the progress made by the DOE and others regarding cost, safety and technical operation of CCS/CCUS? Among the study's principal recommendations was that DOE take a stronger position on the need for policy parity for CCS with other low carbon technology options.



[Leveling the Playing](#)

[Field: Policy Parity for CCS Technologies](#) (Nov. 2015) ~ was a white paper response to the Secretary's request for details on policy measures and financial incentives that could help to level the playing field for the more expeditious deployment of CCS technologies. The principal theme of the white paper was that federal policy has severely tilted the energy playing field. Existing incentives for CCS are simply too small to bridge the gap between the cost and risk of promising, but immature, CCS technologies vis-à-vis other low carbon technology options.

Notably, both reports prepared by NCC this year were approved via precedent-setting webcasts, facilitating a more timely NCC member review and approval process, allowing a quicker response to the Secretary's requests.

In 2015, the NCC also launched a new website ~ www.nationalcoalcouncil.org ~ greatly enhancing the content, readability and appearance of the site. We add an Energy Education section highlighting critical facts and figures on coal.

NCC hosted two meetings ~ a Cherry Blossom timed spring meeting in Washington, DC and a first-of-its-kind fall meeting at DOE's National Energy Technology Laboratory (NETL) in Pittsburgh, PA. Both meetings featured strong programs with speakers addressing topics ranging from CO₂-algae demonstrations and SaskPower's Boundary Dam CCS project, to grid-scale energy storage and international coal market prospects.

NCC's charter was approved for the 2016-2017 term. Membership held steady through 2015 at 117, just shy of our 125 member cap. Our new charter provides for up to 150 members; if you know of anyone who might be a good candidate for appointment to the NCC, contact Janet Gellici at the NCC office.

Much more good work planned for 2016! Stay tuned!



NCC LEADERSHIP

Jeff Wallace, NCC Chair

VP Fuel Services (retired)
Southern Company Services

Mike Durham, NCC Vice Chair

Principal, Soap Creek Energy

Fred Palmer, Coal Policy Chair

Peabody Energy (retired)

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Communications Committee

CHAIR ~ Holly Krutka

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Hiranthie Stanford
Member & Meetings Manager

Hunton & Williams
Legal Counsel

NationalCoalCouncil.org

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



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.

JUPITER OXYGEN CORPORATION

<http://jupiteroxygen.com/>

Mark Schoenfield, Senior Vice President of Operations & General Counsel at **Jupiter Oxygen Corporation** is pleased to report that the company signed a contract for a commercial CCUS enhanced coal bed methane (ECBM) project, a major climate change project in China that will accelerate carbon capture technology deployment and demonstrate the commercial viability of CCUS projects. The parties to the agreement include No. 156 Coalfield Geologic Exploration Team Subordinate to Xingiang Uygur Autonomous Region Coalfield Geology Bureau (China), Jupiter Oxygen Corporation (USA) and Advanced Resources International (USA). The project will demonstrate the feasibility of commercial-scale high-flame temperature oxy-combustion with carbon capture for CCUS and CCS, and will provide methane for China's residential and vehicle needs.

Jupiter Oxgen, headquartered in Illinois, is an energy technology company that has developed and patented high-flame temperature oxy-combustion with carbon capture for utility and industrial boilers, as well as industrial melting furnaces. The project was supported by the U.S. Departments of Energy and Commerce, as well as the U.S. National Energy Technology Lab (NETL).

PQR ENERGY

<http://www.pqrlc.com/>

Marty Irwin, formerly with the Indiana Center for Coal Technology Research, is now working with PQR Energy, a veteran-owned management consultancy with decades of experience developing and implementing energy management strategies on large-scale domestic and international energy projects. PQR Energy recently sponsored the NCC's Fall 2015 meeting luncheon at NETL in Pittsburgh and Marty graciously made an individual donation in support of NCC. Thank you, Marty, and best of luck with your new endeavor!



APRIL 19-20, 2016 WASHINGTON, DC NCC 2016 SPRING MEETING

We're finalizing plans for the National Coal Council's 2016 Spring Meeting. Please hold these dates ~ we'll confirm dates next month.

Fall 2016 ~ If you have suggestions on prospective locations outside of Washington, DC for our Fall 2016 meeting, or would like to host the Fall 2016 meeting, please email Janet Gellici at info@NCC1.org.

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/browser

NETL Director Bochenek
 Describes Bright Future for
 Fossil Energy Research at
 NCC Meeting
[NETL Home Page](#)

Carbon Capture Analyst:
 'Coal should stay in the
 ground'
[Univ. of Michigan Report
 12-2-15](#)

U.S. Energy Chief (Moniz)
 says climate solution lies in
 innovation
[Christian Science Monitor
 12-7-15](#)

Sec. of Interior warns coal
 industry could leave
 taxpayers with major bill
[St. Louis Post-Dispatch 12-
 9-15](#)

Cornerstone Magazine ~
 Reclamation Focus
[Winter 2015-2016 Issue](#)

President Obama's
 Climate Agreement
 Announcement
[White House 12-14-15](#)

Factors Driving Wind and
 Solar Toward Grid Parity
[Utility Dive 12-10-15](#)

Democrats Respond to
 EPA Carbon Rule
[Coal Blue Nov. 2015](#)

Gellici Speaking Engagements
 Leveling the Playing Field
 American Coal Council
 Webcast Feb. 10th, 2016

National Coal Council
NationalCoalCouncil.org

THANKS



It's been a challenging year for our industry and for the National Coal Council. As 2015 draws to a close, I would like to take this opportunity on behalf of the members of the NCC to thank the folks that really stepped up to the plate this year. The extent and variety of your contributions created a beautiful rainbow bridge of support.

THANK YOU NCC EXECUTIVE COMMITTEE MEMBERS

Jeff Wallace, NCC Chair, Southern Company (retired)
 Mike Durham, NCC Vice Chair, Soal Creek Energy
 Fred Palmer, Coal Policy Committee Chair
 Peabody Energy (retired)
 Bill Brownell, CPC Vice Chair, Hunton & Williams
 Greg Workman, Finance Chair, Dominion Energy
 Holly Krutka, Communications Chair, Shenhua Group
 Joe Hopf, Talen Energy
 Clark Harrison, CH2M
 Chris Jenkins, CSX Transportation
 John Long, Connemara Ltd.
 Rich Lopriore, PSEG Fossil LLC
 Michael Sorensen, Tri-State Generation & Transmission
 Kathy Walker, Elm Street Resources
 Joe Craft, Alliance Coal
 John Eaves, Arch Coal
 Mike Mueller, Ameren Missouri

THANK YOU NCC FINANCE COMMITTEE

Greg Workman, Committee Chair, Dominion Energy
 Robert Bibb
 Bibb Engineers, Architects & Constructors
 Paul Gatzemeier, CBCC
 Kathy Walton, The Basic Industries Grop LLC

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 Dawn Santoianni, Committee Vice Chair
 Tau Technical

Sy Ali, Clean Energy Consulting
 Barbara Altizer, Virginia Coal & Energy Alliance
 Jackie Bird, JF Bird Enterprises
 Lisa Bradley, Haley & Aldrich
 Andreas Heger, Hegergraphix (Web Master)
 Casey Kaptur, RungePincockMinarco
 Michael Kennedy, State of Kentucky
 Jason Makansi, Pearl Street Inc.
 Jeff Miller, MJP Productions (Videographer)
 Betsy Monseu, American Coal Council
 Ken Nemeth, Southern States Energy Board
 Caryl Pfeiffer, LGE-KU
 Robert Puissant, Fuel Tech

THANK YOU MEETING SPONSORS

Arch Coal ~ Bechtel ~ CH2M ~ Clean Coal Solutions
 Dominion Energy ~ Lignite Energy Council ~ PPL
 EnergyPlus ~ PQR Energy ~ Southern Company ~
 University of Wyoming

THANK YOU STUDY CHAIRS/LEADS

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 Bill Brownell, CPC Vice Chair, Hunton & Williams
 Amy Ericson, ALSTOM Inc.
 Carl Bozzuto, ALSTOM Power
 Holly Krutka, Shenhua Group
 Pam Tomski, Global CCS Institute
 Shannon Angielski, CURC
 Jeff Phillips, EPRI
 Glenn Kellow, Peabody Energy
 Fred Eames, Hunton & Williams

THANK YOU NCC CHAIR'S ADVISORY COUNCIL

Advanced Emissions Solutions, Mike Durham
 Ameren Missouri, Mike Mueller
 Arch Coal, John Eaves
 BNSF Railway, George Duggan
 Clean Coal Solutions, George McClellan
 Dominion Energy, Greg Workman
 Jupiter Oxygen, Mark Schoenfield
 Peabody Energy, Fred Palmer
 PSEG Fossil LLC, Rich Lopriore
 Southern Company, Jeff Wallace
 Tri-State G&T, Michael Sorensen

THANK YOU NCC STAFF SUPPORT

Hiranthie Stanford
 NCC Meetings & Member Relations
 Karen Bennett, Legal Counsel
 Hunton & Williams

NCC Member Focus

Joe Hopf is a model of dedication to NCC. Following his appointment to the Council in 2008, he quickly assumed the role of NCC Chair (May 2010-May 2012) and has continued serving NCC as a member of the Executive Committee. Thank you for your above-and-beyond service to the NCC, Joe!

In his capacity as Sr. Vice President-Fossil & Hydro Generation and as Chief Commercial Officer at Talen Energy, Joe oversees a growing fleet of merchant generating plants powered by coal, national gas, oil and water in the largest competitive wholesale power market in the country, including PJM Interconnection, New York ISO, ISO New England and ERCOT (Texas). He also directs Talen Energy's wholesale and retail energy marketing functions, which include energy marketing centers in Allentown, PA and Butte, MT, and manages fuel procurement for Talen Energy power plants.

Joe has more than 30 years of experience in the electricity business, as well as expertise in risk management and credit issues. He began his career in power plant operations at PSI Energy in Indiana and advanced through the ranks as the company merged with Cincinnati Gas & Electric to form Cinergy. Joe supervised Cinergy's energy control center before becoming managing director of trading and operations.

Joe joined Ameren Energy in St. Louis where he was responsible for an asset-based generation business. He also worked as VP of Energy Trading for Goldman Sachs in NY where he developed a 24-hour energy trading operation. He joined PPL Corporation as Sr. VP-Energy Marketing and eventually as President of PPL EnergyPlus. Joe assumed his current position when PPL spun off its competitive generation business to form Talen Energy in June 2015.

Joe serves on the Board of Directors of Big Brothers Big Sisters of the Lehigh Valley and is a past chairman and board member of the Electric Power Supply Association.



C. JOSEPH HOPF
**SENIOR VICE PRESIDENT FOSSIL & HYDRO GENERATION
 & CHIEF COMMERCIAL OFFICER**
TALEN ENERGY

Talen Energy is one of the largest competitive energy and power generation companies in the U.S. The company generates and sells electricity, capacity and related products from a fleet of power plants in the mid-Atlantic and Texas using diverse fuel sources, including coal, nuclear, natural gas and hydro.

Talen Energy's coal assets include Brandon Shores Power Plant (Maryland, 1,273 MW), Brunner Island Power Plant (Pennsylvania, 1,411 MW), Colstrip Power Plant (Montana, 2,094 MW), C.P. Crane Power Plant (Maryland, 399 MW), H.A. Wagner Power Plant (Maryland, 976 MW coal, gas and oil) and Montour Power Plant (Pennsylvania, 1,504 MW).

Joe Hopf

835 Hamilton St., Ste. 150

Allentown, PA 18101

610-774-4548

Joe.hopf@talenenergy.com

www.talenenergy.com



In November 2015, NCC members approved a white paper the Council prepared for the Secretary of Energy detailing policy parity measures that could be undertaken to level the playing field for CCS technologies.

This series of newsletter articles details primary findings/recommendations.

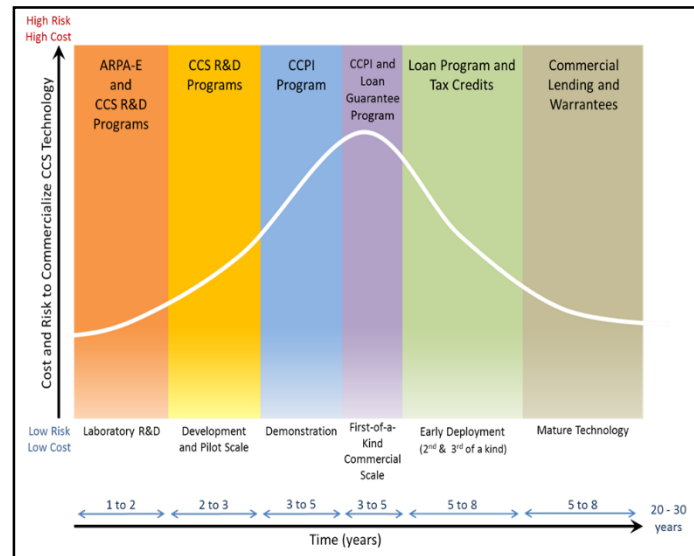
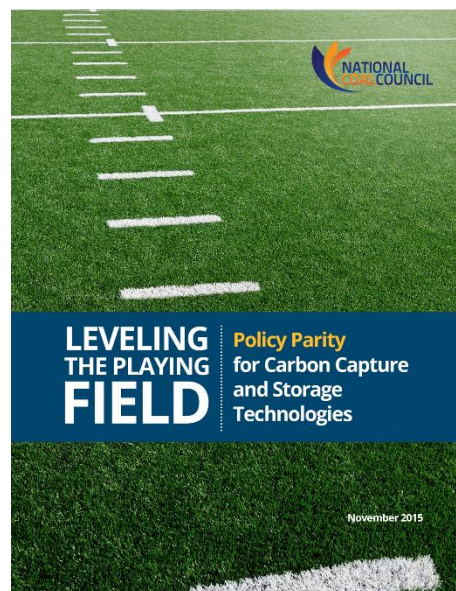
The Importance of Policy Parity for CCS Technologies

CCS needs policies recognizing it as a still immature, not commercially available carbon reduction technology. These policies need to account both for cost factors and still uncertain technical performance risk.

Policy parity is important to meeting the diverse set of U.S. energy policy objectives. Those objectives have consistently focused on providing a reliable, secure and low-cost supply of energy, and in recent years have increasingly directed energy production and consumption toward environmental objectives. CCS is essential to meeting those environmental objectives. Policy parity for CCS will have the added benefit of ensuring we preserve other critical features of our energy system, such as fuel diversity and reliability.

Leveling the playing field in an era of increasing concern about global climate change starts with the policy imperative of recognizing that coal will continue to be a major source of electricity in the U.S. and worldwide for decades to come. CCS is the only technology that can substantially reduce CO₂ emissions from “always on” baseload power generation from secure fossil resources, domestically and internationally. It is also the only technology with applicability to the existing electric generating fleet as well as industrial sources.

The policy need at issue is to catalyze the rapid deployment of CCS to facilitate low-carbon fossil fueled generation. Policies that disproportionately advantage one resource and erect hurdles for others impede our nation’s economic and environmental objectives while imposing undue hardship on our citizens. Incentives for renewables will persist. CCS, which has greater carbon reduction potential requires additional policy support in order to level the playing field.



Energy Technology Development Spectrum to Commercialize Technology Source: NCC Fossil Forward Study

The risk profiles of building a 10 MW photovoltaic facility versus a 500 MW supercritical coal power plant with CCS are significantly different. Development and deployment of CCS technologies present numerous unique challenges:

- ~ Capital and operating costs for projects with CCS are more expensive and carry greater technological and commercial risk.
- ~ Pioneering FOAK projects typically include a more rigorous investment due diligence process conducted during the front end engineering and design phase. These can add significant time and complexity.
- ~ The main challenge for power generation CCS is the high cost to run the capture unit.

~ Unlike earlier DOE-funded clean coal projects (i.e., SO₂ or mercury control), the central technologies being demonstrated for CCS are not ancillary to power plant operation and must be fully integrated to achieve reasonable cost and performance.

Acknowledging the unique benefits of the various energy resources and their associated unique challenges can help guide the crafting of policies and incentives that maximize beneficial use of our nation’s fossil, nuclear and renewable resources.

Access the White Paper
[Leveling the Playing Field: Policy Parity for CCS Technologies](#)

WHO KNEW?*

Battelle

The Business of Innovation

THOUSANDS OF MINDS, ONE MISSION

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life sciences, and energy and environmental industries.

Battelle is the world's largest nonprofit research and development organization, with over 22,000 employees at more than 60 locations globally. A 501 (c) (3) charitable trust, Battelle was founded on industrialist Gordon Battelle's vision that business and scientific interests can go hand-in-hand as forces for positive change.

Today, Battelle manages the world's leading national laboratories and maintains a contract research portfolio spanning consumer and industrial, energy and environment, health and pharmaceutical and national security. Battelle is valued for its independence and ability to innovate.

Battelle's work in the Energy and Environment sector includes air quality and regulatory compliance, water systems and infrastructure management, geological characterization-storage-modeling, and natural resource assessment and monitoring.

Battelle efforts in carbon management include advancing carbon capture and storage technologies to the commercial stage. The organization worked with American Electric Power on its Mountaineer CCS Product Validation Facility, which marked the first time that capture, transport, injection, storage and monitoring were put together for a coal-fueled power plant.

<http://www.battelle.org/our-work/energy-environment/case-studies/advancing-carbon-capture>

Since 2003, Battelle has also led the Midwest Regional Carbon Sequestration Partnership (MRCSP), a unique public-private collaboration of nearly 40 government, industry and university partners. The initiative aims to assess the technical potential, economic viability and public acceptability of CCS for the U.S. Department of Energy.

<http://www.battelle.org/our-work/energy-environment/case-studies/advancing-energy-innovations-to-mitigate-climate-change>

More recently, Battelle has engaged in an on-going research project on coal and coal biomass to liquids (CBTL), involving a hybrid, direct CBTL jet fuel process being developed using novel biomass-derived solvents. The project aims to demonstrate a straightforward path to near-term commercial production, a significant reduction in capital and operating costs, and a substantial reduction in greenhouse gas (GHG) emissions without requiring CCS.

<http://www.netl.doe.gov/research/proj?k=FE0023963>

***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

Paris Climate Agreement Targets Rising Temperatures

The U.S. and nearly 200 other countries have concluded [a climate agreement that seeks to substantially reduce emissions](#) of carbon dioxide (CO₂) and other greenhouse gases (GHG). The deal was reached following nearly two weeks of negotiations in Paris under the auspices of the United Nations (UN).

The accord's goal is to hold global temperature increases to no more than 2 degrees Celsius (3.6 degrees Fahrenheit) above those that prevailed before the beginning of the Industrial Revolution. According to *The Washington Post*, a major goal is to encourage governments and private industry to "to rapidly develop new technologies to help solve the climate challenge."

"This agreement sends a powerful signal that the world is fully committed to a low-carbon future," President Obama commented. But while Obama termed the agreement "a turning point for the world," and has made its negotiation a focus of his second term agenda, it faces major opposition on Capitol Hill.

Sen. Mitch McConnell (R-Ky.), the chamber's majority leader, commented that the president's international partners "should remember that this is an unattainable deal based on a domestic energy plan that is likely illegal, that half the states have sued to halt, and that Congress has already voted to reject."

According to *The New York Times*, despite the historic nature of the agreement, "[its success still depends heavily on two factors outside the parameter of the deal: global peer pressure and the actions of future governments.](#)" The newspaper termed the requirement that every nation take part "the core of the deal."

As for future governments, *The Hill* indicated that White House Press Secretary Josh Earnest emphasized there will be "a powerful economic incentive ... for us to follow through on our commitments and make sure that other countries are doing the same."

The press aide added that many of the formal pledges Obama made as part of the Paris deal are already beginning to kick in, including regulations on power plant emissions EPA finalized this fall.

ENERGY ISSUES

EPA Chief McCarthy Reverses Course on Role for Coal

A year after insisting that "coal will be a continued part of our future," Environmental Protection Agency (EPA) Administrator Gina McCarthy changed course, telling Facebook that the fuel is "not necessarily the path to the future." In fact, *The Hill* reported, McCarthy asserted that [the U.S. is "transitioning away from coal because coal is no longer marketable."](#) "We have cleaner natural gas, and we have opportunities for low-carbon power like renewables and using energy efficiency to lower energy demand," McCarthy argued. Speaking from the UN climate summit in Paris, the EPA chief said the U.S. was not alone: "China is fully engaged" in seeking to address its coal use and emissions, as are the U.S. and others, and we're hopefully going to see the world come together." The American Coalition for Clean Coal Electricity (ACCCE) denounced McCarthy's statement, asserting that the Administrator was "conveniently backtracking to better politicize the President's agenda on the world stage." No other energy source compares to coal in terms of reliability and affordability, ACCCE added.

Gas Pressing Coal for Power Plant Primacy, EPA Says

After outpacing generation from coal-fueled power plants for the first time ever in April, [generation by plants fueled by natural gas is expected hold the top spot for at least half the months of 2015](#), the Energy Information Administration (EIA) reported. Sustained low prices for gas make it more cost-competitive as a generating fuel, the Energy Department statistical unit said in its December *Short-Term Energy Outlook*. It reported that gas's share of electricity generation will reach 32.4% in 2015, up from 27.5% in 2014, while coal's share is forecast to drop to 34.1% in 2015 from 2014's 38.6%. Generation from coal is forecast to remain flat at 34.1% in 2016, while gas's share will dip to 31.6%. EIA indicated that higher forecast natural gas prices in 2016 are expected to contribute to higher utilization rates among coal power plants, mitigating the effect of lower consumption due to coal-plant retirements. Coal consumption in the electric power sector is forecast to increase by 1% in 2016 as electricity demand rises and generation from natural gas and nuclear decline.

Coal Currents (continued)**ON CAPITOL HILL****Vetoes Underscore Opposition to Obama on CPP, Climate**

Both chambers of Congress have approved resolutions that would overturn President Obama's Clean Power Plan (CPP), sending the measure to the Oval Office and a promised veto. While the GOP-controlled House and Senate lack the votes needed to override a veto, their leaders have asserted [the resolutions' passage demonstrates that the White House lacks legislative support for its climate change policies](#). Each chamber passed a pair of resolutions, aiming at the EPA rule mandating a 32% decrease in existing power plants' carbon dioxide emissions by 2030, and at a rule applicable to new and modified plants. Republicans hoped that the chambers' votes under the seldom-invoked Congressional Review Act (CRA) would demonstrate to the Paris climate change summit that a majority of Congress does not support the President's agenda, *Politico* noted. Additionally, they hoped to underscore the likelihood that a Republican president would abandon the present Administration's focus on climate change, the publication added. However, [President Obama expressed confidence that the U.S. will meet its climate pledges](#), and that it is in his successor's best interest to keep the country's climate commitments, *The Hill* reported.

MINING & TRANSPORTATION**Senators Ask Coal Leasing Changes to Protect Climate Goals**

[Three Senators have called on President Obama](#) to modify the federal coal leasing program to protect the country's climate change goals. In a letter, Democrats Edward Markey (Mass.), Sheldon Whitehouse (R.I.), and Richard Blumenthal (Conn.) asked the President to use his executive authority to direct the Secretary of the Interior to significantly increase royalty rates to account for the cost of carbon pollution from coal produced on public lands and to use this authority to prohibit the export of such coal. Finally, the Senators called on Obama to suspend all new coal leasing pending implementation of the program changes. Without such modifications, they wrote the White House, Interior's coal program "has the potential to significantly undermine the Administration's larger goals with respect to combating climate change both here at home and abroad." Accordingly, the Senators called for a full accounting of coal's cost to human health and the environment before sales are allowed. They also introduced legislation to effect the recommended changes.

ENVIRONMENTAL REGULATION**Dems' Group Seeks Reevaluation of U.S. Energy Policy**

In pursuing clean energy, U.S. policy is failing to recognize "the predominant importance ... of energy efficiency and affordability," more than 500 members of a Democratic Party organization, the CoalBlue Project, wrote President Obama. This policy therefore requires reevaluation, they emphasized. [Coal will remain a major global source of energy for decades, and "there is no path to a clean, low-carbon world without clean, low-carbon coal,"](#) the letter pointed out. However, EPA's rules for new and existing electric generating units miss the mark in many important regards, such as endangering continued development of carbon-mitigating technologies needed for sustainability without achieving any meaningful reductions in global CO₂ emissions. If the U.S. is serious about addressing the climate challenge, it must get serious about carbon capture and storage (CCS), CoalBlue emphasized. But rather than driving it forward, EPA's rule threatens to discourage investment in development and deployment of CCS, the group underscored. It called on the President to rally around all three legs of the climate stool -- efficiency, renewables and CCS -- to overcome "what are too often seen, incorrectly, as intractable and irreconcilable differences."

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)***INTERNATIONAL INTEREST****Expert Seeks to Allay Qualms on Chinese Coal Reporting**

Anxieties raised by recent reports that China has been underreporting its coal consumption, and therefore its carbon emissions data, since 2004 may be misplaced, according to a Brookings Institution researcher. Qi Ye, senior fellow at the Brookings-Tsinghua Center for Public Policy in Beijing, wrote that the "good news" is that China is making serious efforts to correct those statistics as additional information becomes available, and to publish those corrections. ["They are certainly not, as has been suggested explicitly or by innuendo in some criticisms, consciously underreporting as a tactic in diplomatic gamesmanship."](#) Additionally, the article said, the updated statistics have been in use by researchers and policymakers, and will not alter China's policy target of reaching peak emissions around 2030, nor its commitment to international collaborations on climate change -- most notably with the United States. Problems exist in China's statistics, including coal consumption, the author acknowledged. "But these challenges must be seen in proportion to the improvements that have already been made and in the context of current initiatives and trends."

China Seeking to Slash Coal Plants' Emissions by 2020

[China's cabinet said it would attempt to cut pollution from coal-fired power plants by 60% by 2020 through upgrades to the facilities,](#) according to Xinhua, the state news agency, *The New York Times* reported. If successful, the upgrades would reduce carbon dioxide (CO₂) emissions from such plants by 180 million metric tons, the agency said. The cabinet also said that the upgrades would mean a reduction in raw coal use of about 100 million metric tons, *The Times* said; the power industry accounts for about half of China's coal use. Late last year, Chinese President Xi Jinping announced that the country would try to reach a carbon emissions peak around 2030, and China has said it is setting a cap on coal use of 4.8 billion tons in 2020. *The Times* noted that China's coal consumption was flat in 2014 compared with the previous year when measured by energy generation, and some scientists believe that the country may already be reaching its peak in coal use.

UK Government Proposes to Shut Down Coal-Fueled Plants by 2025

The United Kingdom's Conservative government has proposed to restrict the use of the country's coal-fueled power plants by 2023 and shut them down by 2025, according to BBC News. In announcing the prospective action, Energy Secretary Amber Rudd called for the construction of more gas-fired power stations, indicating that the coal closures would move forward only if gas-fueled power can fill the void that would be created. While [coal now provides about a quarter of the country's electricity,](#) the energy chief denounced the sector as "a legacy of underinvestment and aging power stations which we need to replace with alternatives that are reliable, good value for money and help to reduce emissions." According to the BBC, Rudd added that, "It cannot be satisfactory for an advanced economy like the UK to be relying on polluting, carbon-intensive 50-year-old coal fired power stations ... We need to build a new energy infrastructure, fit for the 21st century." Speaking in advance of the UN climate summit in Paris, Rudd said that if coal-based plants can install carbon capture and storage systems before 2025, they would not be closed.

DULY NOTED**George Will: Coal's Blessings Have Outweighed Problems**

"History has a sense of whimsy," noted conservative columnist George Will, commenting on the juxtaposition of the closure of Britain's last deep-pit coal mine and the planet's latest "turning point," as he derisively called the recently concluded UN climate summit in Paris. Will's column pointed out that, ["Any agreement about anything involving nearly 200 nations will necessarily be primarily aspirational, exhorting voluntary compliance with inconsequential expectations -- to 'report' on this and 'monitor' that."](#) However, "As the ink dries on the Paris gesture of right-mindedness," he added, "let us praise the solar energy source most responsible for the surge of human betterment that began with the harnessing of fossil fuels around 1800" -- coal, which he lauded as "a still abundant and indispensable form in which the sun's energy has been captured from carbon-based life." Coal was the basis of the Industrial Revolution, from which sustained economic growth, "a necessary prerequisite for scientific and technical dynamism," became possible. All in all, Will underscored, "The environmental toll from burning coal has been slight relative to the environmental and other blessings from it."

Coal Currents *(continued)*

IN THE INDUSTRY

Clean Coal Has Failed to Capture World's Attention

Authoritative bodies such as the International Energy Agency (IEA) and the United Nations' Intergovernmental Panel on Climate Change (IPCC) have said large-scale deployment of carbon capture technology is likely essential to keep man-made global warming below 2 degrees Fahrenheit and stave off its worst effects, the Associated Press (AP) noted. But despite this [clean coal technology has failed to capture the world's attention](#). The news service characterized Mississippi Power Company's Kemper County integrated gasification combined cycle (IGCC) clean coal power plant as "looking like another monument" to the technology's unfulfilled promise, quoting an analyst who said carbon capture may have missed its moment when investments failed to take off despite considerable hype a decade ago. Possible remedies might include stronger incentives, including a carbon price making it more expensive to release emissions into the atmosphere rather than into the ground, and government subsidies akin to the \$100 million annual support renewables receive. At present, AP indicated, Southern Company, Kemper County's owner, isn't planning any similar projects. "I think any thoughtful person would say you really have to look at the cost," the plant's manager commented.

Senate Bill Reaches Back on Carbon Capture Financing

[Legislation has been introduced in the Senate that would allow businesses to use government-issued, tax-exempt private activity bonds to finance carbon capture projects](#). The Carbon Capture Improvement Act, introduced by Sens. Rob Portman (R-Ohio) and Michael Bennett (D-Colo.), is essentially an idea that was used to clean up air pollution for two decades, *The New York Times* reported. From 1968 to 1986, the federal tax code's provisions on private activity bonds contained an allowance for air pollution control, "spurr[ing] tens of billions dollars' worth of installations aimed at ridding emissions of sulfur dioxide and other harmful substances," *The Times* noted. That exemption no longer exists, it added, and proponents say the legislation "is aimed at bringing the tax code in line with policy and technology developments." They add that use of the bonds could help fund carbon capture needed to meet climate goals and emissions reductions required by the Obama Administration's Clean Power Plan. *Utility Dive* pointed out that "The addition of carbon capture technology, if it can be made cost-competitive, [could provide a way for utilities to build coal plants](#) in an era of stricter air quality and climate regulations."



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