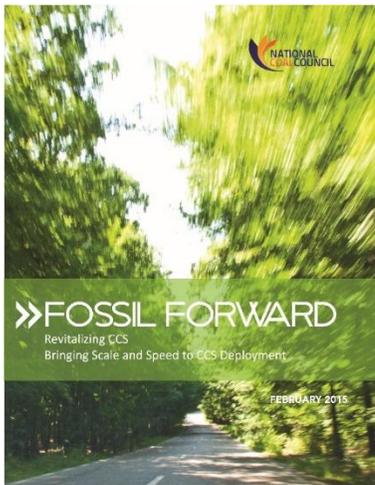




NATIONAL COAL COUNCIL ~ OCTOBER 2015

SECRETARY MONIZ REQUESTS NCC WHITE PAPER ON POLICY PARITY

U.S. Secretary of Energy Ernest Moniz has requested that the National Coal Council develop a white paper that focuses on incentives and policies that can be employed to level the playing field for deploying carbon capture and storage (CCS) technologies.



The Secretary's request is in response to a recommendation put forth in the NCC's most recent study, [Fossil Forward - Revitalizing CCS: Bringing Scale & Speed to CCS Deployment](#) (February 2015). In this report, NCC noted that in order to achieve CCS deployment at commercial scale, policy parity for CCS with other low carbon technologies and options is required.

We noted that "Policy parity for CCS in funding, extending tax credits and other subsidies provided to renewable energy sources, will facilitate creation of a robust CCS industry in the U.S., benefiting the American people and leading to the

development of the lowest cost, near zero emission energy technology." NCC recommended that DOE take a stronger position on the need for policy parity with respect to funding allocations.

The Secretary's latest request for a Policy Parity White Paper would identify incentives and policies that can be employed to level the playing field for the deployment of CCS technologies. It would also discuss opportunities to remove regulatory obstacles, address market failures, adjust tax policies and utilize time-limited subsidies for clean energy technologies that could be employed to expedite and advance the deployment of CCS.

The Policy Parity White Paper is being undertaken through the NCC's rapid response initiative, employing the oversight of the NCC's Executive Advisory Board (formerly Secretary's Advisory Board) and a focused team of contributors drawn from NCC's membership with expertise in this subject.

A draft of the White Paper is being prepared for review by the NCC's Coal Policy Committee, following which the document will be submitted to the full NCC membership for consideration. If you have questions about the White Paper, please contact Janet Gellici at igellici@NCC.org or 202-756-4524.

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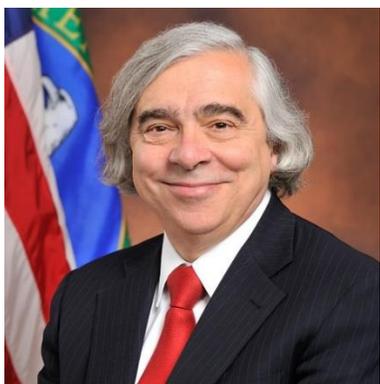
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NCC CHARTER RENEWED FOR 2016-2017

U.S. Secretary of Energy, Dr. Ernest Moniz has signed the charter renewing the continued operations of the National Coal Council for 2016-2017. The new NCC charter will become official when filed with Congress in late November 2015 at the expiration of our 2014-2015 charter period.



The charter officially establishes the NCC under the authority of the U.S. Department of Energy in accordance with provisions of the Federal Advisory Committee Act (FACA).

The charter outlines the objectives and scope of activities for the NCC related to providing advice and recommendations to the Secretary of Energy on general policy matters related to coal and the coal industry.

Membership for up to 150 members is authorized in the charter, with members being appointed for two-year terms. The names of current NCC members who have requested reappointment to the NCC for 2016-2017 have been submitted to DOE for review and approval. We anticipate renewals to be approved by the time the new charter is officially filed.

Membership dues invoices will be sent in early November 2015 and are due and payable by January 15th, 2016. We appreciate your continued support of the NCC as we continue to provide critical advice and guidance to Secretary Moniz.

Show Us the Love ~ or at least the "Like"

Please consider supporting our budding social media efforts.

www.facebook.com/NationalCoalCouncil

- On Facebook, please "Like" the NCC page.
- Share important coal industry events and articles to the NCC page.
- Comment on NCC posts.

We appreciate your help in sharing the good work of the NCC through Facebook.



Thank You Chair's Advisory Council Members!

The support of the following companies as members of the Chair's Advisory Council contribute significantly to the ability of the NCC to perform its work for the Secretary of Energy.

We couldn't do what we do without them ~ thank you one and all!

Advanced Emissions Solutions
Ameren Missouri
Arch Coal
BNSF Railway
Clean Coal Solutions

Dominion Energy
Jupiter Oxygen
Peabody Energy
PSEG
Southern Company
Tri-State G&T

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

One Christian Perspective on Climate Change
[Lecture by Cardinal George Pell at Global Warming Policy Foundation October 2011](#)

Quadrennial Technology Review: An Assessment of Energy Technologies & Research Opportunities ~ U.S. Department of Energy September 2015
<http://energy.gov/atr>

2016 Presidential Candidates on the Clean Power Plan
[American Coalition for Clean Coal Electricity](#)

Study Shoots Coal Lease Study Full of Holes – Energy Ventures Analysis Study Refutes Headwaters Economics' Findings
[Wyoming Business Report 9-17-15](#)

The Big Picture: Powering China and India
[Power Magazine September 2015](#)

Sorry, Greenies: Coal Isn't Dying; It's Restructuring
[townhall.com 9-22-15](http://townhall.com)

The Role of Business and Industry in COP21
[Cornerstone Magazine Fall 2015](#)

Gellici Speaking Engagements
[MIT Carbon Sequestration Forum](#)
 Cambridge, MA – Oct. 21-22
[Carbon Management Technology Conference](#)
 Houston – Nov. 17-19

National Coal Council
NationalCoalCouncil.org

NCC FALL 2015 MEETING ~ NOVEMBER 4-5 ~ PITTSBURGH FINAL PROGRAM SET

The program for the National Coal Council's Annual Fall Meeting is set for November 4-5 in Pittsburgh. For the first time in its history, NCC will be hosted by the National Energy Technology Laboratory (NETL) at its Pittsburgh location, providing an opportunity for NCC members to get a hands-on look at the RD&D efforts underway at NETL and to interact one-on-one with crucial NETL staff.



We'll kick off our program with an opening reception on November 4th (6-8 pm) at the Crowne Plaza Pittsburgh South hotel at 164 Fort Couch Road, Pittsburgh. A block of rooms has been reserved for NCC meeting attendees at the special rate of \$119/night. Reservations must be made by Friday, October 16th by calling 412-833-5300. Online reservations can be made via [NCC Crowne Plaza Hotel Reservations](#).

The Full Council Meeting (8:45 am-12: 15 pm) will be hosted on November 5th at NETL. Transportation to NETL from the Crowne Plaza will be provided with buses departing at 7:30 am and 7:55 am; return transportation to be provided immediately following lunch (1:15 pm) and after the NETL tour (3:15 pm).



The program starts with a keynote presentation by [Dr. Grace M. Bochenek](#), Director of NETL who will provide an overview of NETL's priority initiatives.

Dr. Sean Plasynski, Director of [NETL's Strategic Center for Coal](#) will then provide a more in-depth update on NETL coal RD&D initiatives.



We'll round out our program with three additional presentations:

- Dr. Jack Groppo, Program Manager/Sr. Engineer, Center for Applied Energy Research, University of Kentucky will provide an update on Duke Energy-UK CAER East Bend Algae Demonstration Project.
- Dr. Jared Moore, Meridian Energy will discuss "The Increasing Competitiveness of CCUS Generation Under Deep Decarbonization."
- Dr. Robert Williams will address the topic of "CO₂ Capture Technology Cost Buydown in EOR Applications with Alternative Financing Mechanisms."

Following a networking lunch, an optional afternoon tour (1-3 pm) of the NETL facility will provide an opportunity for interaction with NETL staff working on key coal-related programs.

Please plan to join us for this special event. NCC members and guests are invited to register for the NCC's 2015 Annual Fall Meeting at <https://www.etches.com/137597>. As always, there is no charge to attend the event but registration is required.

Thank you to Event Sponsor **Dominion Energy** and to our other meeting sponsors including **Arch Coal, CH2M, the Lignite Energy Council and the University of Wyoming School of Energy Resources**. We have a number of sponsorship opportunities available for this special meeting. Please contact NCC Meetings Manager, Hiranthie Stanford at 202-756-4524 or hstanford@NCC1.org for more information.

We look forward to seeing you in Pittsburgh in November!
REGISTER TODAY! <https://www.etches.com/137597>

SMALL DOMESTIC FIRES CITED AS WORST AIR POLLUTERS IN INDIA & CHINA MAX-PLANCK INSTITUTE STUDY

A [recent study](#) by a team of researchers at the Max-Planck Institute for Chemistry (Mainz, Germany) found that each year worldwide, 3.3 million people die prematurely from the effects of air pollution. The largest source of air pollution? Not industry. Not transport. The largest source of air pollution = small domestic fires and agriculture.

The researchers found that exposure to air pollution is particularly acute in Asia, especially China and India, where three-quarters (3/4) of the world's pollution-related deaths occur. It's reported that 1.4 million people in China and 650,000 people in India die each year as a consequence of air pollution. Overall, one-third of premature deaths in the world are attributable to inefficient forms of combustion, including diesel generators, small stoves and smoky open wood fires which many people in Asia use for heating and cooking.

The major contributor to air pollution deaths outside Asia is agriculture. Air pollution in Europe, Russia, Turkey, Japan and the eastern U.S. caused by ammonia from the use of fertilizers and intensive livestock farming are blamed for one-fifth (1/5) of all deaths due to air pollution. In some countries, such as the Ukraine, Russia and Germany, that figure is over 40%.



MAX-PLANCK-GESELLSCHAFT

CORNERSTONE
THE OFFICIAL JOURNAL OF THE WORLD COAL INDUSTRY

A [recent article](#) in [Cornerstone Magazine](#) (December 2014) provides additional insights into respiratory risks from household air pollution vis-à-vis coal power plants. In their article entitled "Evolution of Cleaner Solid Fuel Combustion," Christopher Long, Principal Scientist, Gradient and Peter Valberg,

Principal, Gradient note that the health of one in three people worldwide is at risk because of exposure to emissions from traditional household solid fuel combustion, including wood, charcoal, coal,¹ dung and crop residues.

The Gradient researchers found that measured PM_{2.5} (particulate matter) and CO (carbon monoxide) concentrations inside homes burning traditional solid fuels are thousands of times greater than even the high-end estimates of ground-level ambient exposure levels from U.S. coal power plant stack emissions. "Even if a low-efficiency coal-fired power plant with no emissions controls were employed – a likely scenario in areas where traditional solid fuels are combusted and in the absence of international support for efficiency and environmental upgrades – order-of-magnitude differences would likely be observed compared to traditional solid fuel combustion." Compared to traditional household solid fuel combustion, modern coal power plants represent a more sophisticated, cleaner approach to getting the maximum energy out of solid fuel, with significantly reduced impacts on human health.

¹ "Although coal is used for both traditional household solid fuel combustion and for electricity generation at modern power plants, coal handling and combustion conditions for the two situations are quite different. When used as a traditional household solid fuel, large chunks of often lower-quality coal are directly burned under uncontrolled combustion conditions, such that combustion is inefficient and incomplete. In contrast, modern power plants often burn higher-quality coal, usually pulverized and mixed with air, under efficient and controlled conditions, resulting in nearly complete combustion of coal organics.

NCC Member Focus

Pamela Tomski is one our newest members, appointed to the NCC in 2014. Pam's wasted no time in lending her support to NCC's efforts. She drafted a chapter for our "Fossil Forward" study, summarizing international initiatives to advance CCS. Thanks for your support Pam!

Pamela Tomski brings to the NCC 17 years of domestic and international experience in the carbon capture, utilization and storage (CCUS) field. In September 2014, Pamela joined the Global CCS Institute where she serves as Senior Advisor, Policy & Regulatory - The Americas. She leads the organization's efforts to advance national, state and provincial-level policies and regulatory frameworks that enable CCUS deployment. Pamela also leads the region's engagement with the Environmental NGO Network on CCS to advocate for supportive CCUS policies and broaden strategic alliances with key companies and energy, environment and climate groups.

Since 2011, Pamela has also served as a Nonresident Senior Fellow at the Atlantic Council, a leading think tank focused on strategic global issues, to highlight the strategic importance of fossil fuels and CCUS. In 2004, with support from the U.S. Department of Energy (DOE), Pamela founded the world's first CCUS summer school, the Research Experience in Carbon Sequestration (RECS). She continues to serve as Director and active mentor to young CCUS professionals worldwide which now includes an alumni and career network of over 500 scientists, professionals and leading CCUS experts.

Prior to joining the Institute, Pamela was the Managing Director of EnTech Strategies, LLC where she was engaged in various consulting roles with the public and private sectors relating to energy technology development and commercialization, strategic planning, and energy, climate change and CCUS policy. She served as Director of Education, Outreach and Regulatory Compliance for the Big Sky Carbon Sequestration Partnership, and has consulted on CCUS issues for the US DOE, Los Alamos National Laboratory, Government of Norway, Norwegian Research Council, Asia Pacific Economic Cooperation, The World Bank, International Energy Agency (IEA) and others.

Pamela is an Advisory Board Member of SECARB-Ed, a member of the CCUS Research Coordination Network and the Carbon Sequestration Leadership Forum's Financing and Academic Task Force, an expert peer review member of the IEA Greenhouse Gas Technologies Conference, and advisor to the Inter-University Student Initiative in Carbon Sequestration (ISICS). She received a BA in international affairs from The George Washington University.



PAMELA TOMSKI
SENIOR ADVISOR
POLICY & REGULATORY – THE AMERICAS
GLOBAL CCS INSTITUTE

Established in 2009, The Global CCS Institute is an international membership organization. Its mission is to accelerate the development, demonstration and deployment of carbon capture and storage (CCS), a vital technology to tackle climate change and provide energy security.

GCCSI seeks to drive the adoption of CCS as quickly and cost effectively as possible by sharing expertise, building capacity and providing advice and support so that this vital technology can play its part in reducing greenhouse gas emissions.

The organization's diverse international membership consists of governments, global corporations, small companies, research bodies and non-government groups, committed to CCS as an integral part of a low-carbon future.

GCCSI is headquartered in Melbourne, Australia with offices in Washington DC, Brussels, Beijing and Tokyo.



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>> FOSSIL FORWARD

Revitalizing CCS: Bringing Scale & Speed to CCS Deployment

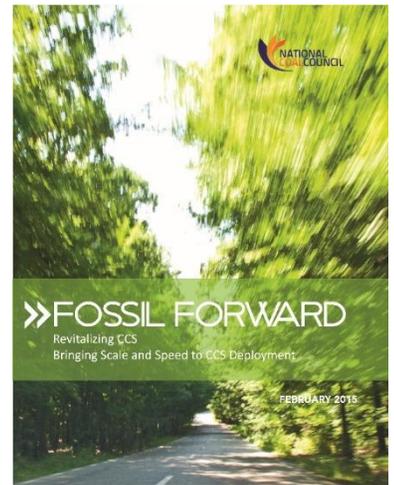
In January 2015, NCC members approved a study the Council conducted for the Secretary of Energy assessing the value of the Department of Energy's Carbon Sequestration Program. This series of newsletter articles details primary findings/recommendations from the report.

CCS/CCUS Gap Analysis

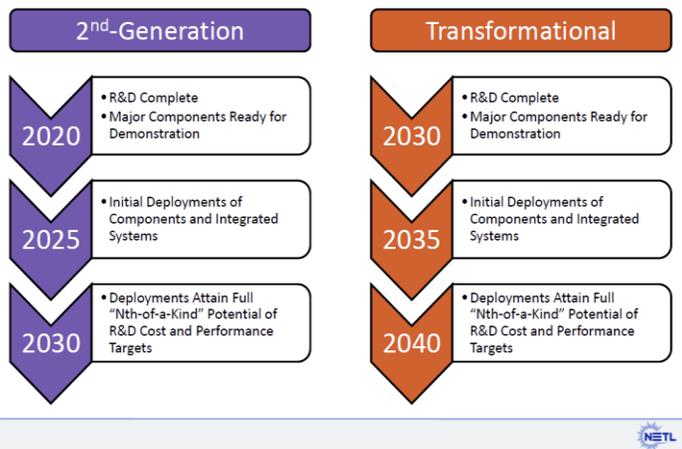
The National Coal Council's Fossil Forward study identified numerous gaps in the current DOE CCS/CCUS program in the areas of capture and transformational technologies, transportation (pipelines), storage and utilization, international collaboration, workforce issues and public acceptance, and financing. Highlights from two of these areas:

Capture & Transformational Technologies – Federal and international carbon management objectives will require widespread deployment of CCUS by the 2030s. This means technologies must be ready for commercial deployment a decade prior to have the desired impact. DOE's goals for greenfield CCUS and companion "transformational" technologies have evolved in the last decade, wherein 2nd generation technologies in 2020-25 are targeted to capture CO₂ at ~\$40/tonne, and transformational technologies <\$40/tonne by 2030-35. All costs are for NOAK plants. FOAK plants by their nature will cost more than NOAK, but DOE's program has no mechanism to assist FOAK units, meaning these units will not get built and therefore neither will NOAK plants. Nor is there any plan to fund demonstrations of 2nd generation. Thus, DOE's current program will fall short.

Creative Financing – No federal funding for commercial scale CCS/CCUS demonstrations has been available since FY 2009. The existing DOE loan guarantee program is not addressing the true financial obstacles and therefore has few takers – rendering it insufficient to meet the goals. There is a need for more creative financing options. DOE should consider the United Kingdom's model, "contract for difference," to assist commercial scale CCS projects. This mechanism covers the difference between the market price for electricity received by a power plant implementing CCS and the plant's actual cost to generate electricity. Another model to review and consider is the 2012 National Enhanced Oil Recovery Initiative (NEORI) that proposes the use of competitively awarded federal production tax credits for companies that capture CO₂ and sell it for use in EOR. Additionally, rate recovery, feed-in tariffs, grants and tax free debt financing should also be evaluated for their potential to expedite CCS/CCUS deployment.



CCRP Technology Development Timeline An Aggressive Schedule



Key Findings.

- The current DOE CCS/CCUS program does not include any budget or plan to fund demonstrations of 2nd generation CO₂ capture technologies, which are needed to foster ultimate widespread deployment by the 2030s. Thus, the 2nd generation needs to be operating in ~2020-2025, meaning that financial commitments must be made imminently (2015-16).
- Concomitantly, DOE should continue to sponsor early stage R&D on needed transformational technologies for CO₂ capture and improved compression.
- DOE's CO₂ current storage program is insufficient. The goal should be to have 5-10 GW of CCUS projects operating by 2025. The program should address the significant risk a CCUS developer faces in finding and developing a suitable storage site in a timely/economic fashion by helping to identify and certify at least one reservoir, subject to specific criteria, in each of the seven Regional Carbon Sequestration Program regions.
- In recent past, no federal funding has been made available for commercial scale demonstrations, and the DOE loan guarantee program for CCS/CCUS is conceptually flawed, generally not used, and therefore will not move these projects forward. More creative financing approaches must be offered.

Access the Full Report Here ~ [NCC Fossil Forward-Revitalizing CCS Study](#)

WHO KNEW?*



Multi-disciplinary research effort assesses new tools for climate management

Multiple forecasts suggest that rapidly developing nations such as China will be responsible for most of the growth in greenhouse gas (GHG) emissions over the next 50 years. This expectation is the driving force behind the formation of a project launched in October 2011 involving researchers from MIT and China, known as the China Energy and Climate Project (CECP).

The CECP is an alliance between the [MIT Joint Program on the Science and Policy of Global Change](#) and the Institute for Energy, Environment and Economy at Tsinghua University in Beijing, China. At MIT, the CECP is associated with and supported by the [MIT Energy Initiative](#). The goal of the CECP is to analyze the impact of existing and proposed energy and climate policies in China on technology, energy use, the environment and economic welfare by applying — and, where necessary, developing — both quantitative and qualitative analysis tools.



The development and application of such new tools include both national and regional energy-economic models of China. Growing out of the MIT Joint Program's Emissions Prediction and Policy Analysis model, these new tools are informed by three major components: First, researchers study the behaviors and trends that drive micro-level decisions made by households and firms to better understand supply and demand within energy-intensive sectors. Second, the researchers analyze specific technology prospects, including electric vehicles, advanced fuels and alternative sources of electricity, to determine China's technology potential. Finally, current and proposed climate and energy policies in China are evaluated for environmental and economic impact. These evaluations are conducted primarily through the use of the models developed for the project, based on similar methods employed in the MIT Joint Program over the last 20 years.

In June 2015, researchers from this initiative used their China-in-Global Energy Model (C-GEM) to assess approaches for meeting China's 2030 GHG targets. Researchers noted that to meet its new 2030 targets, China will need to take aggressive steps, including introducing a nationwide price on carbon emissions as well as preparing for the safe and efficient deployment of nuclear and renewable energy at large scale.

http://globalchange.mit.edu/CECP/news/latest/news_id/472

***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

Leaders Say U.S., China Will Offer Common Vision at Climate Talks

President Obama underscored that [the U.S. and China will offer "a common vision" for an ambitious international climate change agreement](#) at a December United Nations (UN) conference in Paris. "When the world's two largest economies, energy consumers and carbon emitters come together like this, there's no reason for other countries -- whether developed or developing -- to not do so as well," Obama said.

Speaking at a press conference with Chinese President Xi Jinping in Washington, D.C., the President pointed to the two nations' 2014 agreement on a deal to reduce their greenhouse gas (GHG) emissions; the U.S. is to make cuts of almost one-third by 2030, while China will cap its emissions by that year. According to *The Hill*, Obama also cited China's recently announced carbon cap-and-trade system, to go into effect by 2017, comparing it to his Clean Power Plan.

Xi indicated that the two countries would "work together to push the Paris climate change conference to produce important progress," while Obama suggested that their recent bilateral agreement would encourage other countries' efforts, "increasing the prospects for a stronger global agreement this year."

Separately, Todd Stern, U.S. special envoy for climate change, said in New York that [the Paris talks, if successful, will mark "a fundamental pivot" to sustainable multilateralism](#), in which the parties "will turn the corner toward working constructively together rather than in two opposing camps."

"We will not yet be at the inflection point from which emissions head downwards," Stern acknowledged, "but will have taken a crucial and necessary step toward that point."

CLIMATE CHANGE

Despite Greenhouse Gas Cuts, Global Warming Remains a Threat

Greenhouse gas (GHG) emissions cuts pledged by countries to date would still allow the globe to heat up by more than 6 degrees Fahrenheit, well above "the highest level at which many scientists believe the planet can endure," new research suggests. According to a study by Climate Interactive and MIT researchers, global warming will reach 6.3 degrees F above pre-industrial levels by 2100 if countries take no action beyond current commitments, as opposed to 8.1 degrees F if there are no reductions at all. *The New York Times* noted that temperature increases above 3.6 degrees F, on top of the 1.5 degree rise already seen over the temperature that prevailed before the Industrial Revolution, are likely to be catastrophic. However, the newspaper added, ["optimism is growing among some diplomats and scientists that progress has become possible,"](#) particularly in light of intensive engagement between the U.S. and China. According to a UN official, the task of the organization's upcoming climate meeting in Paris is "to put mechanisms into the deal to encourage countries to ramp up their ambitions over time," *The Times* reported.

ENVIRONMENTAL REGULATION

States, Industry Foes Ask Federal Court to Invalidate EPA's MATS Rule

Opponents of the Environmental Protection Agency's (EPA) Mercury and Air Toxics Standards (MATS) for power plants have asked a federal appeals court to invalidate the rule, asserting that a June Supreme Court ruling rendered it illegal. In *Michigan v. EPA*, the high court indicated that EPA should have considered the costs of the power plant regulations before deciding whether they were appropriate and necessary -- the Agency had delayed consideration until later in its process -- and remanded MATS to the U.S. Court of Appeals for the D.C. Circuit. *E&E News* reported that [nearly 20 states and several industry parties have asked that the appeals court overturn MATS because its issuance exceeded EPA's authority under the Clean Air Act](#), with the Agency failing to consider "the threshold question" of whether the benefits of the regulation were worth the costs. Conversely, MATS supporters urged the appeals panel to keep the rule in place while EPA addresses problems identified by the Supreme Court. EPA, explaining that it had already performed an "exhaustive consideration of costs" during its rulemaking process, has said it can issue a new "appropriate and necessary" finding by mid-April 2016.

Coal Currents *(continued)*

MINING & TRANSPORTATION

MSHA Proposes to Require Proximity Detection Systems in Coal Mines

The Mine Safety and Health Administration (MSHA) has unveiled a proposed rule which would require that [haulage machinery in underground coal mines be equipped with technology to prevent miners from being struck, pinned or crushed](#). The proposal calls for proximity detection systems, which use electronic sensors to sense motion and the distance between a miner and a machine. The devices provide audible and visual warnings and automatically stop moving machinery before miners are impacted. "We know this technology works as a number of mine operators have already installed proximity detection systems on coal hauling machines and scoops," said Kevin Strickland, MSHA administrator for coal mine safety and health. Following [a series of public outreach meetings](#), the comment period on the proposal closes Dec. 1; 36 months after the rule goes into effect, all coal-hauling machines must be in compliance. The proposal follows MSHA's January publication of a final rule requiring installation of proximity detection systems on continuous mining machines used to cut coal in underground mines.

Green Group Pushes Anti-Coal Mining Campaign in Federal Court

An environmental group, WildEarth Guardians, has followed up a legal victory in Colorado by expanding its anti-coal mining campaign in the courts. According to an AP article in *The Missoulian*, the group previously persuaded a federal judge in Colorado to rule that federal agencies must take indirect environmental impacts such as climate considerations into account when approving mining projects. While that case involved a mine supplying coal to a nearby power plant, AP noted, the Guardians' subsequent suit names Interior Secretary Sally Jewell, the Interior Department and its Office of Surface Mining and Reclamation as defendants and targets some of the country's largest mining companies. The group is also "taking its argument further," AP said, asserting that [federal regulators should be looking at the cumulative effect of mining as a whole and whether the nation should allow any more](#). And while the previous ruling is not binding on the judge looking at this case, it noted, "another win could lead regulators to change their approach and start taking climate change into account before approving future coal leases."

INTERNATIONAL INTEREST

China's Pledge of Carbon Cap-and-Trade System Faces Challenges

Chinese President Xi Jinping's pledge to establish a national market for GHG emissions will demand "big changes from a Chinese government accustomed to heavy-handed intervention and skewed statistics," a *New York Times* article suggested. Part of Xi's motivation in announcing a cap-and-trade system was to dispel doubts that his government is serious about market overhauls and reducing pollution by promising to use capitalistic tools to reduce emissions. But to work in China, *The Times* article noted, companies must be confident of honest treatment in the market for emission permits. "If China's stock market is any guide, plenty of investors say their experience is often the opposite," it pointed out. [The scope of the program could initially cover companies in several industries in a market of up to four billion metric tons of carbon dioxide](#), *The Times* reported -- about twice the size of Europe's emissions program. The government would not place an overall cap on emissions, it added, but limit those for certain designated companies in certain industries; the designees would obtain quotas for their emissions through allocations, auctions or initial purchases.

China's Coal Consumption in Recent Years Higher Than Reported: EIA

Based on energy content, China's coal consumption from 2000 to 2013 was up to 14% higher than previously reported, while coal production was up to 7% higher, the Energy Information Administration has reported. EIA's report was based on revised data from China's National Bureau of Statistics. According to *FierceEnergy*, ["The revisions have potentially huge ramifications for international climate change negotiations."](#) The publication pointed out that the International Energy Agency (IEA) has said that global GHG emissions remained flat in 2014 despite robust growth in the global economy, a finding that suggested growth and GHG emissions had begun to decouple. However, *FierceEnergy* quoted Reuters as saying that, "The revisions in China's coal consumption raise doubts about whether that historic decoupling ... actually occurred." And according to *The Wall Street Journal*, "The upward revision also illustrates just how difficult it is to get an accurate historical account of China's emissions of carbon into the atmosphere. That's a topic of rising international interest ahead of Paris climate talks later this year."

Coal Currents (continued)**ENERGY ISSUES****Forbes Column Spotlights****Environmental Promise of Plant Efficiency**

"Supporting, not thwarting, the development of clean coal technology is our real chance to 'lead the world,'" energy security analyst Jude Clemente wrote in *Forbes*. Clemente's column highlighted the promise of efficiency, pointing out that highly efficient modern supercritical and ultra-supercritical coal plants emit almost 40% less carbon dioxide than subcritical ones. Raising a plant's overall thermal efficiency from 33% to 40% would deliver the annual equivalent environmental benefit of reducing India's carbon dioxide emissions to zero, he added. However, he asserted, the Administration's Clean Power Plan not only downplays coal's critical role, but also the constant evolution of clean coal technology. The regulations make it nearly impossible to build a new coal plant without carbon capture and storage (CCS), "an evolving technology but one that is not yet commercially viable," he underscored. But the use of coal will continue to mount, particularly in developing nations, no matter what the U.S. does, Clemente pointed out. "[Encouraging more supercritical and ultra-supercritical steam cycle technology is the key first step along a pathway to near-zero emissions](#)" from coal with carbon capture, utilization and storage (CCUS).

DULY NOTED**NOAA Data Indicates Planet Heading for Hottest Year on Record**

Following the warmest August and warmest June-to-August stretch on record, [the planet is on track for the hottest year in measurements that date back to the late 1800s](#), data from the National Oceanographic and Atmospheric Administration (NOAA) indicate. Global temperatures to date this year have been 1.51 degrees above the 20th-century average, NOAA reported. A *National Journal* article said NOAA experts indicated in an agency blog post that, "The historical data suggest it would take a remarkable and abrupt reversal in the NOAA GlobalTemp time series over the remainder of the year to upend 2015's drive toward record-breaking status. In other words, it is extremely unlikely that 2015 will lose its commanding lead."

BY THE NUMBERS**Number of Active U.S. Coal Mines Hits Record Low, DOE Unit Says**

The number of new and reactivated U.S. coal mines that began production in 2013 fell to the lowest level in at least the past 10 years, the Energy Information Administration (EIA) reported. The Energy Department statistical unit said that 103 mines were added, while 271 mines were idled or closed in 2013, resulting in a 14% decline in the total number of producing coal mines compared with the previous year. [The 2013 total was 397 fewer coal mines than in 2008, when coal production was at its highest, and represented the lowest number of active coal mines on record](#), EIA specified. And while the Mine Safety and Health Administration's (MSHA) preliminary 2014 data on coal production indicated a slight increase in both production and in new and reactivated mines, these levels will still be below those of previous years, EIA indicated. The DOE unit specified that the declining number of new mines reflects reduced investment in the coal industry, strong competition from natural gas, stagnant electricity demand, a weak coal export market, and regulatory and permitting challenges.

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.