



The National Coal Council
Power for America from America

NATIONAL COAL ADVISORY – JULY 2014

BUILDING ON THE BASE

Since 2000, the NCC has conducted at least nine studies for the Secretary of Energy that address the topic of carbon management. The studies have focused on research, development and deployment (RD&D) needs, CCS technology options, legal and regulatory challenges, employment opportunities, timeframes for CCS deployment and the business case for advancing enhanced oil recovery (EOR).

NCC's Body of Work on CCS/CCUS

~ In Research & Development Needs for the Sequestration of CO₂ (May 2000) NCC recommended that then Energy Secretary Bill Richardson implement a "fuller and more aggressive carbon management program ... [including] research and development of cost-effective carbon dioxide sequestration technologies and efficient, super-clean, multi-use electric generation technologies."

~ In Coal-Related Greenhouse Gas Management Issues (May 2003) NCC recommended to then Secretary Spencer Abraham that DOE "work closely with the private sector to improve and refine the technology 'roadmap' for advanced coal-based power generation technology and carbon capture, transport and sequestration technology with particular attention to defining the time and cost necessary to achieve the roadmap's technical and economic goals."

~ In Coal: America's Energy Future (March 2006) NCC recommended to then Secretary Samuel Bodman that DOE work to assure that EOR in new basins using CO₂ extracted from coal plants is an attractive investment through use of various tax credits and financial incentives.

~ In Technologies to Reduce or Capture and Store Carbon Dioxide Emissions (June 2007) NCC noted for Secretary Bodman that many of the components of

technologies for CCS exist, but additional R&D and commercial-scale operation would be needed to advance national and international climate change objectives.

~ In The Urgency of Sustainable Coal (May 2008) NCC advised Secretary Bodman to avoid prematurely choosing between clean coal technology options and encouraged DOE to support a full portfolio of technology options.

~ In its seminal work on the topic of carbon management, Low Carbon Coal: Meeting U.S. Energy, Employment & Carbon Dioxide Emission Goals with 21st Century Technologies (December 2009), NCC noted to then Energy Secretary Steven Chu that near-term reductions in CO₂ emissions from a portion of the existing coal fleet could be achieved through retrofit technologies that enhance efficiency and through partial CO₂ capture technologies.

NCC FALL 2014 MEMBERSHIP MEETING

**October 15-16
DC Waterfront**



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~ In Expediting CCS Development: Challenges & Opportunities (March 2011) NCC's recommendation to Secretary Chu was for DOE to expand its leadership role in developing CCS technologies and accelerate the near-term development (2015-2020) of integrated commercial scale CCS demonstration projects.

~ In Harnessing Coal's Carbon Content to Advance the Economy, Environment & Energy Security (CCS-EOR) (June 2012) NCC's principal recommendations to Secretary Chu were to develop a stable and consistent regulatory framework to promote CCUS/EOR, to support demonstration and early mover CCUS/EOR projects and to encourage the advancement of education and training programs to develop an appropriately skilled CCUS/EOR work force.

~ Finally, in Reliable & Resilient: The Value of Our Existing Coal Fleet (May 2014) NCC recommended to Secretary Ernest Moniz that DOE place much more emphasis on commercial scale demonstration of CCS systems, both capture and storage options, and work with states and regulatory agencies to create a pragmatic legal framework for CO₂ storage.

What Can NCC Contribute to the Dialogue Going Forward?

NCC has now been asked by Secretary Moniz to provide DOE with an assessment of the progress made by the Department and others regarding the cost, safety and technical operation of CCS/CCUS. The Secretary is interested in our industry's perspective on the major technical findings to-date from the CCS/CCUS community and how they relate to DOE's current programs and investments.

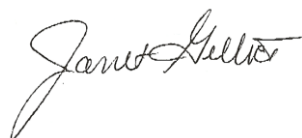
Our new study provides us with an opportunity to:

- Review the status of current CCS/CCUS projects and technologies worldwide.
- Review DOE's current CCS/CCUS programs, including efforts and funding to advance 1st and 2nd generation technologies.
- Detail deployment challenges, including those related to technology development, cost, safety, legal issues, public acceptance and scheduling.
- Conduct a gap analysis, identifying opportunities to address "open" issues and prospective approaches to expeditiously filling these gaps.

We will, of course, be drawing heavily on the previous work of the Council which has continued value and relevance for addressing today's CCS/CCUS challenges.

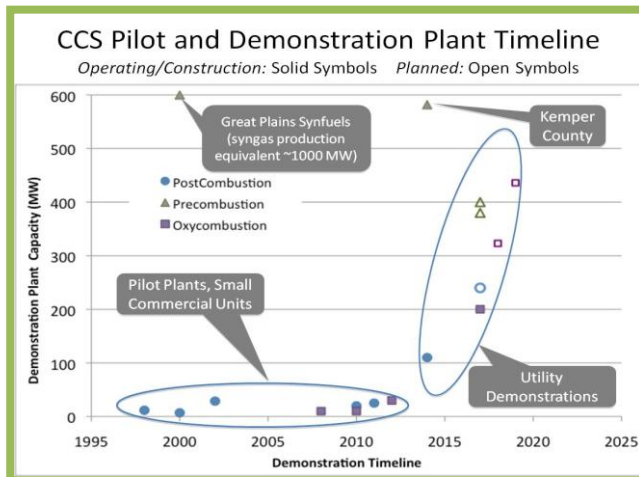
In reviewing our past efforts, I noted that for the last 15 years, NCC has championed the value of CCS/CCUS technologies and offered constructive approaches to advancing carbon management solutions. We've been consistent in our recommendations to DOE and responsive to the Secretaries' requests for input over the years.

We've built an excellent foundational body of work on the topic of carbon management. It's appropriate and timely for us to now pause, review, reassess and develop a framework for the future ... and then get on with it!



**NCC Study Findings
(2000-2014)
CCS Technology
Primary Shortcomings**

- Technologies have not been demonstrated at commercial scale on a power plant.
- The knowledge base on saline storage and enhanced oil recovery (EOR) remains limited and there are unresolved non-technical barriers to both.
- Current technologies are too costly, impose significant energy penalties and can significantly increase cooling water requirements for the generating unit.
- There are numerous challenges related to the integration of CCS on existing units.
- Significant uncertainty exists regarding the characteristics, feasibility and availability of geologic storage opportunities.
- Significant legal and regulatory challenges remain to be resolved, including those related to the long-term stewardship and liability of geologically stored CO₂.



THE BUSINESS AT HAND NCC BUSINESS ITEMS

CCS/CCUS PROGRESS

NEW NCC STUDY IS UNDERWAY

The NCC is embarking on its next study for the Secretary of Energy which will address the questions: What is the industry's assessment of the progress made by the DOE and others regarding cost, safety and technical operation of CCS/CCUS? How does industry see and accept major technical findings from the CCS/CCUS community and how do those relate to DOE programs and

investments?

Study Chair is NCC member **Amy Ericson, US Country President, ALSTOM, Inc.**



Technical Chair is **Carl Bozzuto**, a former VP Technology for Alstom's Power Environment Sector. Carl has more than 40 years of experience in new technology development and commercialization. He earned



his Chemical Engineering degrees (B.S. & M.S.) from the Massachusetts Institute of Technology (MIT).

A scoping meeting is scheduled for July 17th, 10:30 am-12:30 pm Eastern in Washington, DC to develop an outline for the study. If you are interested in participating in the scoping meeting, please contact Janet Gellici at jgellici@NCC1.org by close of business Monday, July 14th.



NCC FALL 2014 MEETING DATES & LOCATION CONFIRMED

The NCC will be hosting its Fall 2014 meeting on October 15th & 16th at the Gaylord National Hotel in National Harbor on the DC Waterfront overlooking the Potomac River (201 Waterfront Street, National Harbor, MD 20745).
[Gaylord National Hotel](#)



Preliminary agenda:

Wednesday, October 15th

Noon ~ New Member Luncheon

1 pm ~ Communications Committee

4 pm ~ Executive/Finance Committee

6:30 pm ~ Welcoming Reception

Thursday, October 16th

9 am ~ Full Council Meeting

12:30 pm ~ Buffet Lunch

Hotel Registration Now Open!

Deluxe guest room rates are \$227 per night; *resort fee is included in room rate*. Rates are available starting October 14, 2014 for those arriving early. **Registration deadline is September 19, 2014.**

Rooms can be reserved by calling 1-888-236-2427 and requesting "National Coal Council Meeting Oct 2014."

For online reservations: <https://aws.passkey.com/g/28384367>

We look forward to you joining us. For questions about the meeting please call Hiranthie Stanford at 202-765-4349.

COAL RESOURCES

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

GHG Tailoring Rule: What
Now If You Own/Operate a
Large Stationary Source?
[Thomas Lorenzen, Dorsey &
Whitney June 26](#)

Interactive Map on State
Energy Policies
[Bipartisan Policy Center June
2014](#)

Ensuring Adequate Power
Supplies for Tomorrow's
Electricity Needs
[Electric Markets Research
Foundation June 2014](#)

EPA Proposal Offers States
Many Options ~ Interview with
EPA's Janet McCabe
[Platts Energy Week TV June 15](#)

House Energy & Commerce
Hearing on 111(d) - EPA's
Janet McCabe
[Energy & Power
Subcommittee June 19](#)

Did You Know ... About the
Power of Coal?
[Alpha Natural Resources You
Tube Video](#)

The Right Approach to Energy
Efficiency
[Partnership for Affordable
Clean Energy](#)

Gellici Speaking Engagements

[National Association of
Regulatory Utility
Commissioners](#)
Dallas - July 20

[Southern Coals Conference](#)
Cincinnati - September 10
[Pittsburgh Coal Conference](#)
Pittsburgh - October 7

National Coal Council
NationalCoalCouncil.org



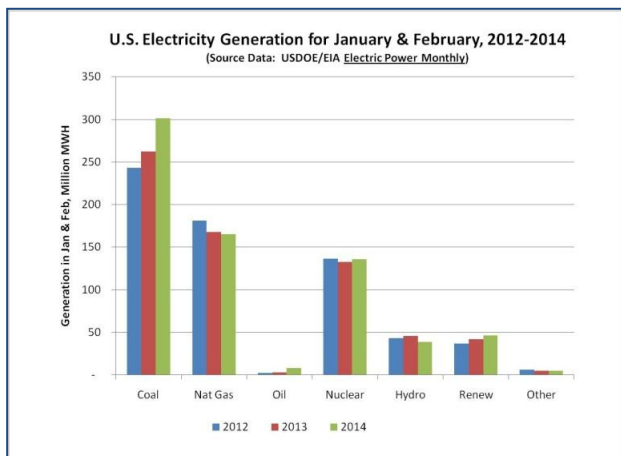
NCC STUDY DETAIL

Reliable & Resilient: The Value of Our Existing Coal Fleet

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

The 2014 Polar Vortex Context

The NCC's Existing Coal Fleet Study was conducted during the winter of 2013-2014. The severe cold weather events experienced throughout the U.S. highlighted the value of our existing coal fleet and reinforced the need to maintain our coal generation option. While electricity supply did meet demand, even under these severe conditions, electricity and gas prices surged and energy supplies were stretched to their limits. Were it not for the utilization of existing coal plants slated to go offline in the near future, many regions would not have met their demand for power.



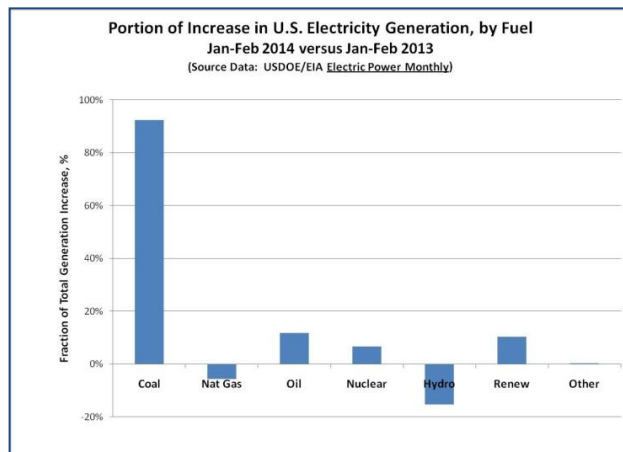
For the months of January/February 2014, coal was the leading source of electric power in the U.S. Wind produced just 4.7% of the nation's power while solar produced less than 0.2%. Nuclear provided only 5% of incremental "year-over-year" generation and hydroelectric output declined 13%. At this time of great stress on power demand (Jan/Feb 2014), coal produced 92% of the increase in U.S. electricity generation relative to the same period in 2013. During this time, natural gas generation *decreased* because natural gas was diverted to fuel residential heating needs and gas prices soared to over three times that of coal.

"This country did not just dodge a bullet – we dodged a cannonball."

**– Nick Akins, CEO
American Electric Power
Testimony before
Senate ENR Committee**

Based on the most recent data from the Energy Information Administration (EIA), if the projected premature closure of 60 GW of existing coal plants proceeds, by 2018 natural gas generating capacity will exceed that of coal, nuclear and hydro combined. This dependence on natural gas for electricity places both reliability and affordability at risk. EIA indicates that at least 54 GW of coal generation will be forced to close by 2016, more than one-sixth of the entire coal fleet in just two years. Cuts into coal capacity may go much deeper, particularly as new environmental regulations now under development are promulgated.

The major lesson learned from the 2014 Polar Vortex is that the U.S. power grid is less resilient than previously believed. Only the availability and operation of coal units now scheduled for retirement over the next two years enabled the power sector to meet demand during periods of harsh weather.



NCC Recommendation - DOE should lead collaborative efforts with industry to assess the impacts of the 2014 Polar Vortex experience on power prices, availability and reliability.

A series of 7 fact sheets and a PowerPoint graphics deck (complete with explanatory notes) from the NCC study is available on the NCC website at www.nationalcoalcoal.org under the "Information/Reports" tab.

WHO KNEW?*

Stanford
SCHOOL OF
EARTH SCIENCES

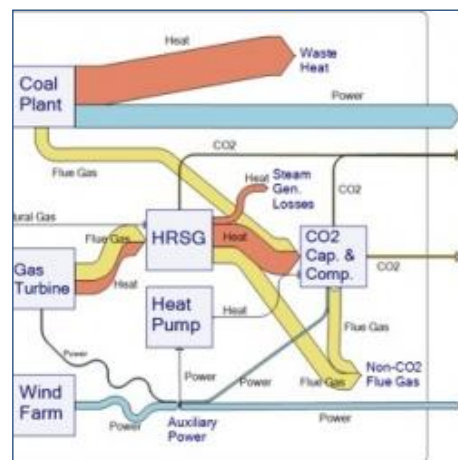
Energy Resources
Engineering

<https://earthsci.stanford.edu/departments/ere/research/profiles>

Optimal CO2 capture and storage to reduce the energy costs of CCS

Carbon capture and storage (CCS) has the potential to significantly reduce greenhouse gas (GHG) emissions from electric power production, especially from coal-fired power generation. Unfortunately, capturing CO2 via CCS is energy intensive due to thermal energy requirements for capturing CO2 from power plant fuel gas, as well as the need to compress captured CO2 for subsurface storage. This energy demand can reduce net output from power plants by more than 20%.

Another key problem facing the electricity grid in coming decades is the intermittency of renewable electricity generation. Wind and solar power are produced when the natural resource is available, not when the power is demanded. Historically, bulk storage of electricity has been expensive, causing problems in some areas where a weakly connected grid has significant fractions of renewable generation (e.g., western Texas).



This Stanford University project aims to address these problems simultaneously through optimal capture of CO2 in response to electricity prices. The system consists of an existing baseload coal-fired power plant, a CO2 capture system, a natural gas turbine and external wind power inputs to the system. The optimization algorithm operates the gas turbine and CO2 capture and compression equipment in response to power prices and the availability of wind power so as to capture CO2 at the lowest cost.

For example, if excess wind generation occurs at a time of low demand and low power prices (e.g., in the night), it may be optimal to capture and compress excess CO2, compared to the average level of capture required to meet regulatory standards. Conversely, when power prices are high, it may be optimal to avoid capturing and compressing CO2 so that all power from the coal-fired power plant and gas turbine can be sold. As long as the average level of capture meets regulatory requirements, the operating costs of capturing CO2 could be significantly reduced.

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

IN MEMORIAM

Neville Antony Hedger Holt ~ 1936-2014 (May 21)

Neville was a leader and mentor in his field for Advanced Fossil Generation Technology. Born and raised on the Isle of Wight, England, Neville graduated from Peterhouse, Cambridge University 1957 with a degree in Chemistry. He joined the Electric Power Research Institute (EPRI) in 1974 shortly after it was founded. His expertise was used by the U.S. Department of Energy (DOE), industry and governments of many countries. Neville was named a Technical Fellow preceding two Lifetime Achievement Awards, the first in 2004 for his many accomplishments in gasification projects to enhance the future of clean fossil fuels throughout the world, and the second from the Gasification Technologies Council in 2006. A Celebration of Life will be held at the Stanford Faculty Club, Stanford University, Palo Alto, California on July 11, 2014 from 4 - 6pm.



NCC MEMBER FOCUS

At its May 2014 meeting, members of the National Coal Council elected Mike Durham as NCC Vice Chair.

Mike has spent his career inventing and implementing solutions to some of our nation's most challenging energy/ environmental issues.

He's succeeded with a patience, perseverance and professionalism that clearly place him among the leaders in our industry.

We're fortunate to have Mike on board in his new role at NCC.

Dr. Michael Durham is the President and CEO of Advanced Emissions Solutions, a company he founded in 1985 to commercialize environmental technologies. He took the company public in 2003 and currently trades on NASDAQ (ADES).

ADES has pioneered measurement and control technologies for mercury emissions from power plants. In 2005, Mike founded and is a current Director of Clean Coal Solution (CCS), a joint venture with Goldman Sachs and NexGen Resources. CCS provides pre-combustion coal-treatment technology for reducing emissions of NOx and mercury that is expected to be used on 10-15% of coal in the US by 2015.

In 2008, Mike founded ADA Carbon Solutions and built the largest single activated carbon (AC) production facility in the world to supply the coal industry for mercury control. To provide feedstock for the AC plant, he opened the Five Forks Lignite Mine, only the third coal mine operating in Louisiana. ADES is currently demonstrating a novel solid-sorbent carbon capture technology in a 1 MW pilot plant at the Alabama Power Plant Miller under a DOE funded project.

Mike has been involved in the measurement and control of emissions from the coal-fired power industry for over 35 years. He has presented and published over 200 technical papers and has been awarded 18 patents. In 2003, he received an R&D 100 award for mercury control technology, and was selected as an International Fellow by the Society for Electrostatic Precipitation.

Mike has served on the National Coal Council since 2002. He is also a member and has served as a Director for the American Coal Council. He is a Director and Immediate Past President of the Institute of Clean Air Companies (ICAC), the Washington D.C. based trade association of the 80 plus companies that provide commercial air pollution control equipment.

Mike has been asked to testify before the U.S. Congress on numerous occasions. In 2012, he was awarded the AWMA Frank Chambers Award for Career Achievements in the field of Air Pollution Control. In 2013, he was recognized with a Distinguished Alumni Award from the University of Florida.



DR. MICHAEL D. DURHAM
PRESIDENT & CEO
ADVANCED EMISSIONS SOLUTIONS

Advanced Emissions Solutions, Inc. (NASDAQ:ADES) is a leader in clean coal technology and the associated specialty chemicals, serving the coal-fueled power plant industry. The company's proprietary environmental technologies and specialty chemicals enable power plants to enhance existing air pollution control equipment, minimize mercury, CO₂ and other emissions, maximize capacity and improve operating efficiency, to meet the challenges of existing and pending emission control regulations. Advanced Emissions Solutions, Inc. serves as the holding company for; [ADA-ES, Inc.](#), [BCSI, LLC.](#), and [Clean Coal Solutions, LLC.](#)



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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

EPA Emissions Proposal Published; Major Changes Said Possible

The Environmental Protection Agency's (EPA) [proposal for regulating carbon dioxide emissions from existing coal-fired power plants](#) has been published in the *Federal Register*. The 645-page document calls for emissions cuts of up to 30%, compared with 2005 levels, by 2030. The Clean Power Plan (CPP) would be implemented through a state-federal partnership, with states identifying a course of action using current or new electricity production and pollution control policies to meet program goals. The comment period on the proposal, which was published June 18, will end Oct. 16; Bloomberg reported that EPA Administrator Gina McCarthy has indicated that [significant changes are possible before a final rule is issued](#) in June 2015. McCarthy also triggered an outcry when she responded to late-night television host Bill Maher's professed hope that the proposed rule was "a war on coal" with the assurance, "[That's exactly what it is.](#)"

Role of States Seen as Key in Implementation of Emissions Rule

Much media coverage of the EPA's emissions proposal spotlighted the importance of states' role in complying with the regulations. Some articles cited opposition to the initiative; *Politico* reported on [state legislators "around the country working to undercut it."](#) and indicated that "If the anti-EPA trend catches fire, it could force the agency to write a greenhouse gas reduction plan for every state that refuses to submit its own." *Forbes* pointed to the close working relationships many coal-burning utilities have with state regulators and noted their interest in [working with these officials on implementation plans](#). Meanwhile, *E&E Daily* suggested that "the relatively sanguine reaction from most utilities" to EPA's issuance reflected [confidence in their ability to influence the state governments](#) that will be crafting plans to meet required emissions reductions. *MIT Technology Review* cited EPA's statement that it "supports ... states' commitments to a wide range of policy preferences," sometimes including [significant reliance on coal-based generation](#).

Experts Differ on Fallout of EPA Rule's "All of the Above" Approach

According to experts, the "all of the above" approach embodied in the EPA's emissions proposal will be needed to meet its stringent reduction targets, *Climate Wire* reported. However, they add, [this approach may also be the rule's "legal Achilles' heel."](#) The agency's departure from the Clean Air Act's regulation of pollutants through "bolt-on" controls at the point of emissions is a likely target for lawsuits, it suggested, along with its empowerment of the states to impose legal obligations on non-regulated entities. But even if a suit successfully found fault with the Agency's approach, elements of the rule are legally severable, so this would not be the end of the EPA issuance itself, the publication noted. Additionally, Reuters reported, legal challenges to the rule would be heard by the U.S. Court of Appeals for the D.C. Circuit, the composition of which would likely make it [sympathetic to the regulations](#).

Media Seeks to Provide Context to President's Actions on Climate

President Obama's actions on climate make little sense in the short term, due to potential electoral, economic and employment costs, according to an article in *National Journal*. However, it suggested, "Rolling out the proposal now is not a political decision, but a bureaucratic one, since the Environmental Protection Agency needs time for a public comment period." While the move won't have noticeable impact on climate for some time, the publication added, "[it could well be crucial to a broader global plan.](#)" The article acknowledged that many actors could thwart the President. However, it added, "In finding a way around Congress and its flawed process, he's made a play of rewriting the political history of climate change." Another *National Journal* article observed that even if the administration gets sweeping carbon controls into final form next year, ["the president will still have to wait for his successor to seal -- or undo -- his hoped-for environmental legacy."](#)

Coal Currents *(continued)*

CLIMATE CHANGE (continued)

Australia Leader Promotes Global Alliance Opposing Climate Efforts

Australia Prime Minister Tony Abbott is seeking to build an international alliance against global moves to introduce carbon pricing, and to oppose President Obama's effort for action through global forums such as the G20 group of industrialized nations. According to the *Sydney Morning Herald*, Abbott is focusing on attracting governments in Canada and Britain, as well as India and New Zealand, to join Australia in the effort. It said [the combined front would attempt to counter recent moves by the Obama administration](#) to increase the pace of climate change abatement through policies such as a carbon tax or state-based emissions trading. The publication added that neither Abbott nor Canada Prime Minister Stephen Harper seems inclined to yield to U.S. pressure to revive the climate change issue ahead of next year's climate summit, nor to back international coordination such as additional regulations or a trading scheme.

IN THE INDUSTRY

DOE, Utility to Evaluate Advanced Carbon Capture, Gasification

The Department of Energy (DOE) and Southern Company have signed a new five-year cooperative agreement for [the evaluation of advanced carbon-capture and gasification technologies](#). The work will take place at the National Carbon Capture Center (NCCC) in Wilsonville, Ala., *Environmental Leader* reported. Under the \$187 million agreement (\$150 million of which will be contributed by DOE), Southern Company will test both pre- and post-combustion carbon capture technologies, along with materials and processes that support advanced fossil fuel conservation systems, primarily coal gasification. Efforts at the Alabama facility will include, but not be limited to, developing technologies that subsequently will be scaled directly to commercial-sized equipment and/or integrated with commercial projects, including those under the Department's Clean Coal Power Initiative (CCPI).

ENVIRONMENTAL REGULATION

High Court Upholds EPA Permit Program, But Notes Regulatory Limits

[The Supreme Court upheld](#), 7-2, an EPA permitting program that regulates carbon emissions from power plants and other stationary sources such as factories, while exempting some smaller sources. This existing program – the high court did not address the Agency's proposal for regulating carbon dioxide emissions from existing coal-fired power plants under the Clean Air Act – is based on the Act's separate Prevention of Significant Deterioration (PSD) provisions, and requires that any new or modified major polluting facility obtain a permit prior to new construction. The Court also ruled, 5-4, that some greenhouse gas-emitting facilities the Agency wanted to regulate were exempt. According to Reuters, the Court said EPA's interpretation would result in "[an enormous and transformative expansion](#)" of its regulatory authority without clear authorization from Congress. AP said the ruling indicated "[the regulation of greenhouse gases is not automatic](#) under every program of the Clean Air Act as the administration had assumed it was."

Mining Group Seeks Judicial Review of MSHA's Coal Dust Rule

The National Mining Association (NMA) [has asked a federal appeals court for review](#) of the Mine Safety and Health Administration's (MSHA) recently announced final rule to lower miners' exposure to respirable coal dust in all coal mines. The trade group contended that the rule contains "fundamental legal and technical infirmities in its scope, foundation and framework," and reflects MSHA's failure to consider important implementation issues and administrative defects. NMA accordingly had requested the Labor Department agency to postpone the rule's effective date while addressing the flaws. However, the request was denied, leading to NMA's filing for judicial review with the U.S. Court of Appeals for the 11th Circuit.

Todd H. Cunningham, who writes the "Coal Currents" column for the Council's monthly National Coal Advisory, is available for additional writing projects involving coal and other energy policy issues. For information on Todd's background and experience, see his LinkedIn profile at www.linkedin.com. To discuss your editorial needs, contact Todd via email at tcunningham03@comcast.net.

Coal Currents *(continued)*

INTERNATIONAL INTEREST

Booming Export Market Represents Bright Spot for U.S. Coal Producers

Despite recent setbacks at home, [some U.S. coal companies are doing a "booming" export business](#) due to a huge demand for coal overseas, NPR said. The network's "All Things Considered" quoted a National Mining Association (NMA) executive as saying U.S. exports are "well over a hundred million tons a year ... double the levels we were exporting [in] 2005 and '06." An energy analyst attributed the export boom to the U.S.'s abundance of cheap natural gas, which has deflated domestic demand for coal, and increasing demand for coal in countries such as Germany and Japan. Despite dynamic economic growth in Asia, NPR reported, coal-producing countries such as Australia, Russia and Indonesia have lower prices and easier access, so many domestic coal companies are focusing on Europe, "which is closer to home and hungry for U.S. coal." Separately, a *FierceEnergy* article on ICF International's third quarter energy outlook suggested ["the biggest hope" for U.S. coal producers in coming years is the export market.](#)

MINING & TRANSPORTATION

Railroads Continue Effort to Clear Powder River Basin Coal Backlog

[Railroads continue to struggle to clear a backlog of coal](#) in the Powder River Basin (PRB) following the harshest winter in more than a decade, Reuters reported. The resulting coal shortage is forcing utilities to burn more expensive natural gas, eroding miners' profits, the news service added. While the railroads that serve the basin, Union Pacific (UP) and Burlington Northern Santa Fe (BNSF), are buying more locomotives to ease bottlenecks, it specified, "analysts and investors said problems are likely to persist until the end of the year." The Energy Information Administration (EIA) forecast 108 million short tons (MMst) of power sector coal inventories for August 2014, the lowest monthly level since February 2006, down nearly 46 MMst from year-earlier levels, Reuters indicated. Separately, EIA reported that nationwide, [two-thirds of the 858 million tons of coal used for power generation in 2013 was shipped either completely or in part by rail.](#) The balance was moved primarily by river barge and by truck.

Chinese Officials Say Cap on Country's Greenhouse Emissions is Coming

China intends to cap its rapidly climbing greenhouse gas emissions, the country's top negotiator at United Nations climate talks in Bonn, Germany, indicated, but has not yet decided when. According to Reuters, another senior Chinese official said that its government was considering action when its next five-year plan begins in 2016. The news service noted that a cap would be "a radical change for Beijing." Meanwhile, Bloomberg reported that "Tighter restrictions on greenhouse gas discharges may cut China's total power output by as much as 40% from 2012 levels by 2020 under an aggressive scenario," according to environmental groups. The greens added that Chinese companies' spending of \$21 billion on coal reserves last year "might be wasted amid tougher environmental rules and weaker growth in electricity demand," Bloomberg said. Separately, it suggested that ["mounting anti-coal sentiment" imperils the ambitions of U.S. companies](#) in the world's fastest-growing region.

BY THE NUMBERS

Coal's Global Energy Share Reaches 30%, the Highest Since 1970

[Coal's share of global energy demand reached 30.1% last year, its largest since 1970](#), the BP Statistical Review reported. According to Bloomberg, use of the fuel increased 3% in 2013, making it the fastest growing fossil fuel. Meanwhile, crude oil retained its top position as global energy supplier, with a 32.9% share, although this decreased for the 14th consecutive year, BP said. Natural gas consumption rose 1.4%, to 23.7% of world primary energy use. An article by an *Oilprice* blogger in *The Christian Science Monitor* cited the International Energy Agency's (IEA) prediction that coal will become the world's top energy source by 2017. However, it added, ["The future is not entirely rosy for coal and there is nothing inevitable about IEA's prediction."](#) As with most energy issues, the piece noted, "coal's prospects hinge on what happens in China." If that nation succeeds in reducing its consumption, the column concluded, "it will have a major effect on global coal markets."