



NATIONAL COAL COUNCIL ~ AUGUST 2016

FULL COUNCIL WEBCAST MEETING SET FOR AUGUST 30th TO REVIEW NCC REPORT ON CO₂ UTILIZATION

Please plan to join us on **Thursday, August 30th, 2-3 pm Eastern** for a webcast meeting of the National Coal Council for the sole purpose of receiving the report "**CO₂ Building Blocks: Assessing CO₂ Utilization Options**" from the NCC's Coal Policy Committee. Members of the NCC will be asked to accept the report and forward it to the U.S. Secretary of Energy.

To participate in the webcast meeting you must register on-line by close of business on August 26th, 2016 at the following URL:

<https://goo.gl/forms/dQnwFBvzI7JcQWLX2>

NCC members are requested to register as soon as possible to ensure a quorum for the meeting.

Those registering for the webcast will receive emailed instructions on how to join the meeting using WebEx two days in advance of the meeting. WebEx requires a computer, web browser and an installed application (free).

As requested by Secretary Moniz, the NCC report is focused on profit-generating opportunities for CO₂ utilization, both for geologic applications, such as enhanced oil recovery (EOR), enhanced water recovery (EWR) and enhanced coalbed methane (ECBM), and for non-geologic applications, such as fuels, fertilizers, building materials, plastics, inorganic/organic and specialty chemicals.

The CO₂ Building Blocks report covers the following topics:

- The Value of Coal
- The CO₂ Utilization Imperative
- Selection Criteria for Evaluation of CO₂ Utilization Technologies & Markets
- Market Review: Geologic Uses of CO₂
- Market Review: Non-geologic Uses of CO₂
- Extent to Which CO₂ Utilization May Incentivize CCS/CCUS Deployment
- Economic Opportunity for the U.S. Associated with Commercial Scale CCS/CCUS Deployment
- Recommendations

The report is being chaired by **Kipp Coddington**, Director of the Carbon Management Institute at the University of Wyoming. A conference call of the NCC Coal Policy Committee, chaired by **Deck Slone** (Arch Coal) is scheduled for August 11th to review a penultimate version of the report. NCC members wishing to participate in the call who have not previously indicated their interest in doing so may contact NCC CEO Janet Gellici at jgellici@NCC1.org.

Following a review of the Coal Policy Committee, NCC members will receive a copy of the final report in advance of the August 30th webcast. Members of the public may access the draft report on August 25th at the following URL:

<http://www.nationalcoalcouncil.org/Documents/CO2-Building-Blocks-2016.pdf>

NCC LEADERSHIP

Mike Durham, NCC Chair

Principal, Soap Creek Energy

Greg Workman, Vice Chair

Director Fuels

Dominion Resources

Deck Slone, Coal Policy Chair

Sr. VP Strategy & Public Policy

Arch Coal

Bill Brownell, Esquire

Vice Chair Coal Policy

Chair, Hunton & Williams

Executive Committee

Lisa J.N. Bradley, PhD, DABT

Vice President/Sr. Toxicologist

Haley & Aldrich

Ted Doheny, President & CEO

Joy Global

George Duggan, VP Coal

BNSF Railway

Michael Jones, VP R&D

Lignite Energy Council

David Lawson, VP Coal

Norfolk Southern Corporation

Mike Sorensen, Sr. Mgr. Fuel

Tri-State G&T

Scott Teel, VP Fuel Services

Southern Company

Kemal Williamson

President Americas

Peabody Energy

Ex Officio

Joe Craft, III, President

Alliance Coal

John Eaves, President & CEO

Arch Coal

Joe Hopf, Senior VP & CCO

Talen Energy

Jeff Wallace

Finance Committee

Chair ~ **Gregory Workman**

Communications Committee

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

NCC Staff/Support

Janet Gellici, NCC CEO

Hiranthie Stanford

Director Membership & Meetings

Fred Eames/Julia d'Hemecourt

NCC Legal Counsel

Hunton & Williams

NationalCoalCouncil.org

1101 Pennsylvania Ave. NW

Ste. 300

Washington, DC 20004

(202) 756-4524



Keeping our NCC community informed of news from our members.

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

Ted Doheny, Joy Global
Joy Global & Komatsu to Merge
[Joy Global-Komatsu News Release](#)

Joy Global has announced a merger agreement with **Komatsu America Corp.** in a transaction valued at approximately \$3.7 billion. Komatsu intends to operate Joy Global as a separate subsidiary of Komatsu and retain the strength of the Joy Global brand name. The transaction is expected to close by mid-2017.

Massood Ramezan, KeyLogic Systems
New Position

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

Congratulations to **Massood Ramezan** on his new position as Senior Technical Advisory with **KeyLogic Systems, Inc.** Massood can now be reached at MRamezan@Keylogic.com, 412-386-6451.

IN MEMORIAM

Garry Drummond, Drummond Co. Inc.

[Garry Drummond Obituary](#)

Garry Drummond, Chairman and CEO of **Drummond Co. Inc.** passed away on July 13, 2016. Mr. Drummond lead the global coal and mining conglomerate for 50 years and was a founder of the **American Coal Foundation**. Mr. Drummond served on the National Coal Council from 1985 to 1990.

NCC ASSOCIATES

Fred Eames, Hunton & Williams
Represents NCC at NARUC

Thank you to **Fred Eames**, Partner at **Hunton & Williams** for representing the NCC at the summer meeting of the National Association of Regulatory Utility Commissioners (NARUC). Fred, principal author of the NCC's "**Leveling the Playing Field: Policy Parity for CCS Technologies**", delivered a presentation on the NCC report at the NARUC event in Nashville.

Todd Cunningham
Freelane Editing, Writing & Publishing Services

tcunningham03@comcast.net – 703-567-8122

NCC would like to thank Todd Cunningham for his years of service writing the "Coal Currents" section of our newsletter, which was discontinued earlier this year. Todd has extensive utility industry experience through his previous work at NRECA and EEI. He is well versed in providing coverage of coal/energy and environmental issues and specializes in writing white papers, case studies and special reports. Please contact Todd directly if you are interested in securing his services. Thank you, again, Todd for your service for the NCC. [Todd Cunningham LinkedIn](#)

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

Industrial CCS – 2 Reports
[Global CCS Institute June 2016](#)

Kemper energy facility reaches syngas milestone
[Sun Herald 07-15-16](#)

How Renewable Energy is Blowing Climate Change Efforts Off Course
[NYT 07-20-16](#)

U.K. Missed Out on £30 Billion by Axing CCS Competition
[Exchange Monitor 07-20-16](#)

BASF & Linde successfully complete pilot project at Natl Carbon Capture Ctr.
[BASF 07-20-16](#)

To tax or not to tax: why we need to pump the brakes on carbon tax
[Daily Climate 07-18-16](#)

Divesting from fossil fuels could cost colleges billions
[Washington Examiner 06-01-16](#)

Clean Power Plan choices by states could affect electricity generation mix
[EIA July 2016](#)

GE aiming to change coal narrative with high-efficiency power solutions
[Engineering News 07-26-16](#)

National Coal Council
NationalCoalCouncil.org

NCC Member Focus

John Thompson, appointed to the National Coal Council in 2013, provides NCC with a valued environmental NGO perspective. John is an active respondent on NCC reports and always has interesting questions to pose to our meeting presenters. Thank you for your service, John!

John Thompson was studying chemical engineering at the University of Illinois when coal changed his life. "In 1980, the campus power plant was converting from gas to high-sulfur coal," said John Thompson, now the Director of the Fossil Transition Project of the nonprofit Clean Air Task Force (CATF). "The plans didn't include sulfur dioxide scrubbers. I helped lead a group pushing for scrubbers, and after several years of studies, organizing and media attention, the state agreed. My life was on a new path."

After graduation, John worked for Proctor and Gamble. He left industry to pursue nonprofit environmental advocacy, and for the next 17 years he focused on hazardous waste, recycling and air pollution issues. Along the way, he earned an MBA from Washington University in St Louis.

In 2001, he joined the Clean Air Task Force. "We focus on North America and China," John said. "We promote new carbon capture technologies, advancing CO₂ pipelines and EOR using low-cost industrial CO₂, and driving the adoption of CCS through incentives and regulations."

"Capturing carbon dioxide works," John said. "It works not just on coal, but gas, biomass and petroleum coke. It works on new and existing plants. Over 50% of the carbon dioxide emissions in the U.S. come from the industrial and power sectors, so CCS is essential to preventing the worst aspects of climate change."

"History shows the effectiveness of pollution controls like CCS," John continued. "For example, between 1980 and 2005, sulfur emissions fell 30% at power plants, mostly from fuel switching to low-sulfur coal. But scrubber installation surged between 2005 and 2010, cutting emissions another 30%. In only five years, scrubbers reduced sulfur emissions by an amount equal to all the fuel switching over the previous 25 years. Carbon capture will follow a similar path. Enough will be built in the coming years to gain support for the technology. That support will enable future regulations that will drive both widespread CCS adoption and deep, mid-century CO₂ cuts."



JOHN THOMPSON
DIRECTOR
FOSSIL TRANSITION PROJECT
CLEAN AIR TASK FORCE

The Clean Air Task Force (CATF) works to help safeguard against the worst impacts of climate change by catalyzing the rapid global development and deployment of low carbon energy and other climate-protecting technologies through research and analysis, public advocacy leadership, and partnership with the private sector.

CATF is applying its technical and policy knowhow to aspects of the climate challenge in cutting-edge ways. About 10 years ago, CATF began to recognize that energy efficiency and renewables would not, on their own, be enough to slow global warming at the rate needed. Against the stark reality of continued coal use in the U.S. and EU, and growing coal use in China, India, and throughout the developing world, CATF saw that ways had also to be found to take the carbon out of coal.

Today, much of CATF's effort is devoted to commercializing and mandating technologies that use coal without emitting carbon. CATF recognized early that China, with its capacity for bringing advanced technology demonstrations to the table quickly, could be an important partner in this quest. As a result, CATF has facilitated more than a half dozen joint ventures between U.S. and China technology companies to get low or zero carbon coal deployed quickly.

For more information on CATF's efforts on climate mitigation, check out CATF's presentation at the NCC's 2016 Annual Meeting -

<http://www.nationalcoalcouncil.org/studies/2016/NCC-Spring-2016-Armond-Cohen-CATF.pdf>

John Thompson
Clean Air Task Force
705 W. Main Street, Suite 101
Carbondale, IL 62901
618-457-0137

jthompson@catf.us
www.catf.us - www.fossiltransition.org



NCC FALL MEETING UPDATE ~ OCTOBER 4-5 ~ MILWAUKEE



The NCC’s 2016 Annual Fall Meeting will be hosted **October 4-5 in Milwaukee, Wisconsin**. The theme for this year’s program is **“Value-Added Opportunities for Coal.”** Presentations feature projects and technologies that represent future growth markets for coal and coal by-products.

We are pleased to confirm the following presenters:

We Energies’ Coal Units: Update on Air Quality Control Systems & Enhanced Flexibility Initiatives
Tom Metcalfe, Executive Vice President, We Energies & Wisconsin Public Service

Digital Power Plant Management: Enhancing Coal Plant Environmental Compliance
Peter Kirk, Head Digital Coal Solutions, GE Power

Carbon-eliminating Allam Cycle for Coal Power Plants
BNI Energy/Allete Inc. – Speaker TBD

Industrial CCS: ADM’s Illinois Industrial CCS Project
***Archer Daniels Midland (invited)**

Beneficial Uses of Coal and Coal Byproducts: Coal Ash & Rare Earth Elements
Danny Gray, Executive Vice President Government & Environmental Affairs, Charah, Inc.



In addition to the half-day program, we’ll be hosting an optional tour of **We Energies’ Oak Creek Expansion Units 1 & 2**, among the cleanest and most efficient coal-fueled power plants in the U.S.

Located on the shores of Lake Michigan, the combined supercritical units have a net generating capacity of 1,230 MW.

https://www.we-energies.com/home/OCXP_FS_C.pdf

The schedule for the NCC 2016 Fall meeting:

- Oct. 4 – Welcoming Reception – 6-8 pm
- Oct. 5 – Full Council Meeting – 8:15 am-12:15 pm
- Oct. 5 – Grab'n'Go Box Lunch – 12:15 pm
- Oct. 5 – Oak Creek Plant Tour – 12:30-4 pm

The event will be hosted at the Hilton City Center in downtown Milwaukee, a Historic Hotels of America property built in 1927 in the Art Deco style.

[Hilton Milwaukee City Center](http://www.hilton.com/milwaukee-city-center)



REGISTER & SPONSOR TODAY

Visit the NCC website at <http://www.nationalcoalcoal.org/page-NCC-Events.html> for hotel, meeting and sponsorship registration information or contact NCC Membership & Meetings Director, Hiranthie Stanford at 202-756-4524 or hstanford@NCC1.org.



MOVING ON DOWN ... TO THE THIRD FLOOR

Effective August 15th, the NCC office is relocating from Suite 600 to Suite 300. Address remains the same at 1101 Pennsylvania Ave., NW, Washington, DC 20004. Please change your records to reflect the new suite number.

NCC UPCOMING SPEAKING ENGAGEMENTS

- NCC's CEO, Janet Gellici, will be presenting findings and recommendations from recent NCC reports at:
 - U.S. Association for Energy Economics/National Capital Area Chapter** – September 2016, Washington DC
 - Power Plant Management & Generation Summit** – October 2016, Houston
 - American Coal Council** – Webcast October/November
 - Carbon Management Technology Conference** – November 2016, Houston
 - U.S. Energy Association** – October/November 2016, Washington, DC

CHAIR'S ADVISORY COUNCIL MEMBERS

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

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



WHO KNEW?*



Third Way is a Washington, D.C.-based public policy think tank founded in 2005. Third Way develops policy ideas, conducts public opinion research and hosts issue briefings in four policy areas: Economics, National Security, Clean Energy, and Social Policy & Politics.

Third Way develops and advocates for policies that it says represent the "vital center."

<http://www.thirdway.org/issue/energy>

The mission of Third Way's Clean Energy Program is to develop and promote policies that will help in the fight against climate change. A sampling of the organization's energy initiatives:

"We Need a Mix" – The challenges with a renewables-only climate strategy.

<http://www.thirdway.org/e-binder/we-need-a-mix>

Third Way is concerned by growing calls for a "renewables-only" solution to the climate change issue, a strategy that would intentionally take other climate tools off the table. The organization points to analysis from preeminent climate authorities indicating that mitigating climate change will become even harder if we fail to take advantage of low-carbon technologies like nuclear energy and CCS.

"Setting the Stage for a 'SunShot' for CCS"

<http://www.thirdway.org/third-way-take/setting-the-stage-for-a-sunshot-for-ccs>

Third Way notes that five years ago, DOE launched SunShot, an initiative to make solar cost-competitive with traditional energy sources. Since that announcement, the price of solar has nearly halved, solar industry employment has doubled, and solar electricity generation has grown 20-fold. What we need now is to replicate this policy success with a SunShot for CCS.

"45Q is Key Catalyst to Address Climate Change"

<http://www.thirdway.org/letter/climate-advocates-45q-is-key-catalyst-to-address-climate-change>

Third Way notes "We need CCUS to meet climate goals – full stop." Like other low-carbon energy technologies, CCUS will require federal policies that incentivize its development and deployment. The 45Q tax credit is a cost-effective tool that rewards projects per ton of utilized or stored CO₂ and it's almost always less costly than other low-carbon energy technology incentives.

"Let's Get Serious About CCS"

<http://www.thirdway.org/report/lets-get-serious-about-ccs>

Third Way believes Washington has failed to give CCS the attention it deserves, especially since this technology has the capacity to resolve some the nation's greatest environmental and economic challenges. The organization notes that CCS deployment has been undermined by a combination of market and policy failures and that CCS is not broken, just neglected.

"CCS: A Look Back at 2015"

<http://www.thirdway.org/memo/ccs-a-look-back-at-2015>

Third Way believes momentum for CCS is building, with 2015 being a good year for CCS. The organization sites the launch and milestones associated with CCS facilities worldwide, U.S.-China support for CCUS pilot projects, the XPrize \$20 million competition launch, DOE's CO₂ storage milestone and enhanced state support for CCS.

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