

45Q TO THE RESCUE

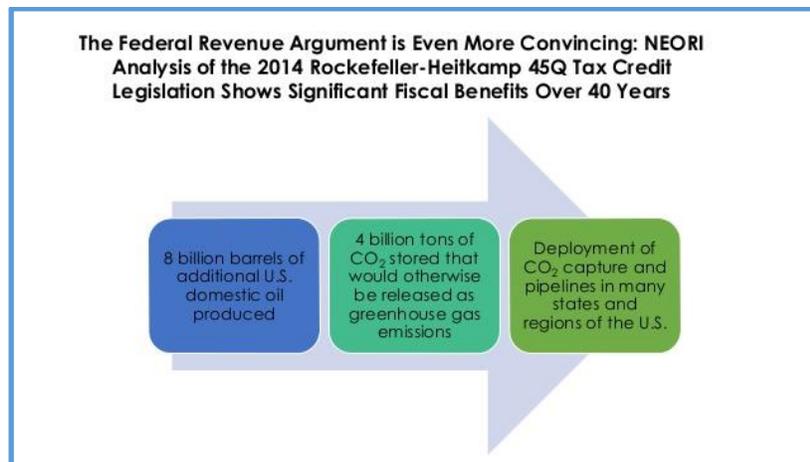
In November 2015, National Coal Council members approved a report for then Energy Secretary Moniz detailing specific financial incentives that could be employed to level the playing field for deployment of carbon capture, utilization and storage (CCUS) technologies. Among the measures identified as critical to incentivizing more CCUS projects was the revision and extension of the 45Q tax credit.

In the NCC report, the Council supports revision of the 45Q tax credit to:

- Eliminate the requirement that the recipient of the credit both capture and inject the CO₂ (which may not be the case, for example, with a power plant selling CO₂ to an oil field).
- Assure that injection that qualifies under existing verification mechanisms as sequestration is satisfactory to obtain the credit.
- Provide for transferability of the credit between parties in the capture and injection chain of custody.
- Increase the credit to \$40/ton for beneficial reuse (e.g., enhanced oil recovery EOR) and \$60/ton for other geologic storage.

[NCC Leveling the Playing Field November 2015](#)

Speaking at the Carbon Management Workshop in Midland, TX in early December, NCC member Brad Crabtree (Great Plains Institute), emphasized the critical role of 45Q reform to the future of the fossil energy industry. He noted the importance of encouraging Congress to **act this month** (December 2017) on legislation currently introduced in the House and Senate (see page 5).



<http://neori.org/resources-on-co2-eor/5-things-to-know-about-co2-eor/>

Crabtree commented that CO₂-EOR is a functional technology but that more projects are needed to help reduce costs. He noted that scaling up carbon capture would deliver significant energy production, economic and emission reduction benefits for the U.S.

Article continues on page 5.

**WELCOME STEVE WINBERG
ASSISTANT SECRETARY FOSSIL ENERGY
U.S. DEPARTMENT OF ENERGY**



The National Coal Council is pleased to welcome former NCC member Steve Winberg as U.S. Department of Energy's Assistant Secretary for Fossil Energy. Congratulations, Steve!

As Assistant Secretary, Steve is responsible for the management and oversight of Fossil Energy's research and development program, encompassing coal, oil and natural gas, as well as the Office of Petroleum Reserves.

Steve has 39 years of experience in the energy industry. He began his career at the engineering firm Foster Wheeler as an engineer on coal-fired utility boilers. From there, he spent 14 years with Consolidated Natural Gas working in a variety of positions before becoming Vice President for CONSOL Energy Research & Development. Immediately prior to coming to DOE, Steve served as a Senior Program Manager at Battelle Memorial Institute.

Over the span of his career, Steve has participated in a number of policy and energy initiatives. He has also gained extensive experience in numerous energy technologies, including advanced fossil energy combustion, coal-to-liquids, fluidized bed combustion, emulsified fuels, fuel cells, alternative fuel vehicles, and carbon utilization.

Steve received a bachelor's degree in nuclear science from the State University of Maritime College in 1978 and an MBA from the University of Pittsburgh in 1991.

NCC LEADERSHIP

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Director Fuels
Dominion Resources

**Deck Stone,
NCC Vice Chair
Coal Policy Chair**
Sr. VP Strategy & Public Policy
Arch Coal

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Tri-State G&T

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Mike Durham, Principal
Soap Creek Energy

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Janet Gellici, NCC CEO
Hiranthie Stanford
Director Membership & Meetings

Fred Eames/Julia d'Hemecourt
NCC Legal Counsel
Hunton & Williams

NationalCoalCouncil.org

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Washington, DC 20004
(202) 756-4524**



NCC Community News

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

Holly Krutka, Peabody Energy

Presents at U.N. Conference of Parties

<https://www.peabodyenergy.com/Sustainability/Industry-Insights/Industry-Insights-17>

At the United Nations Conference of the Parties in Bonn, Germany, Holly Krutka participated in a panel sponsored by the U.S. Government noting that Peabody intends to continue to promote high efficiency-low emissions (HELE) coal-fueled generation technologies and CCUS.

Richard Axelbaum, Washington University (St. Louis)

Idea of 100 Percent Renewable Energy Isn't Feasible

[St. Louis Today Guest Columnist](#)

Richard Axelbaum authored an op-ed for St. Louis Today commenting on the St. Louis Board of Aldermen's recently passed resolution calling for the city to commit to transition to 100% wind and solar energy by 2035.

Betsy Monseu, American Coal Council

Tomorrow's Leadership Council Registration Now Open

<http://www.americancoalcouncil.org/?tlc>

The ACC's Tomorrow's Leadership Council is designed to advance and vest talent in the coal industry. TLC is an annual program that provides a meaningful opportunity for up-and-coming executives to enhance their industry knowledge and networks through projects and activities that advance industry-wide objectives as well as professional development goals.

NCC ASSOCIATES NEWS

John Kennedy & Rob Hardman, Dynegy Inc.

Vistra to Buy Dynegy

[Reuters 10-30-17](#)

Vistra Energy (VST.N) announced that it would buy Dynegy Inc (DYN.N) in an all-stock deal worth \$1.74 billion combining two Texas-based power producers. Vistra is the largest retailer of electricity in Texas and Dynegy, headquartered in Houston, has the majority of its power plants in the northeast U.S. and Illinois.

Mike Moore, East-West Strategic Advisors

Nuclear and coal are essential for reliable energy

[The Hill Opinion Article 11-15-17](#)

In this opinion piece, Mike Moore draws parallels between emergency planning undertaken by critical industries, such as electric power generators, and the milk, top and beer runs we make when a big storm is coming.

COAL RESOURCES & NEWS

U.S. Department of Energy

www.energy.gov

[Office of Fossil Energy](#)

National Energy

Technology Laboratory

www.netl.doe.gov

[Coal & Power Systems](#)

Americans Are Better Off Without the Clean Power Plan
[Jacy Gomez - Morning Consult](#)

Ukraine Turns to American Coal to Defend Itself Against Russia
[The Daily Signal](#)

Blackouts from Phoenix to LA if coal plant shuts down
[Washington Examiner](#)

America's Coal Miners are Profiting – And Looking for Investors - [Bloomberg](#)

Quick German coal exit would endanger power supply security: RWE - [Reuters](#)

Clean coal's future, Wyoming push for carbon capture continues under new Administration
[Casper Star Tribune](#)

Coal Test Plant Coming to Wyoming in November
[U.S. News](#)

Chatterjee details interim plan to save coal, nuclear plants
[Utility Dive](#)

World's No. 1 Miner Sees Bigger Role for Carbon-Capture Systems - [Bloomberg](#)

Science Dies in the Dark
[Count on Coal](#)

National Coal Council
NationalCoalCouncil.org

NCC Member Focus

Susan Jackson is one of the newest members of the NCC, appointed by Secretary Perry in August 2017. She brings to the NCC more than 25 years of experience in the utility industry. Susan has jumped right in, volunteering to draft a fact sheet for the new Administration in early 2017. Welcome Susan and thanks for your service on NCC!

Susan Jackson is the Manager of the Coal Combustion Products (CCPs) & Waste Department at Santee Cooper, South Carolina's state-owned electric and water utility. With over 25 years in the utility industry, her career has included power plant engineering, regulatory compliance, and project management. Her experience has ranged from managing a coal-fired station laboratory, engineering projects at a 1950s vintage hydro, oil, and coal-fired power plant, permitting new coal-fired generation and multiple environmental projects.

As Manager of Santee Cooper's CCP and Waste Department, she was given the mission to expand the beneficial use of CCPs as a method for economical ash pond closures. In this role, Susan leads Santee Cooper's CCP beneficial use program, landfill permitting projects, ash pond closure permitting, groundwater monitoring, and other environmental permitting and regulatory compliance programs. Since 2015 under her leadership, over 1 million tons of CCPs have been beneficially used each year with a continuing upward trend.

Susan is a 2012 graduate of Santee Cooper's management leadership program, a 2012 graduate of Leadership Berkeley, and has received the 2014 Executive of the Year Award. She is Vice Chair of the Santee Cooper Credit Union Board of Directors and is involved in multiple service organizations including Rotary International. As President-Elect of the Moncks Corner Rotary Club, Susan supports multiple community improvement projects.

Susan earned a Bachelor of Science Degree in Mechanical Engineering and a Master in Business Administration from the University of South Carolina and she is a registered Professional Engineer in South Carolina.



SUSAN JACKSON
MANAGER OF THE
COAL COMBUSTION PRODUCTS
& WASTE DEPARTMENT
SANTEE COOPER

Santee Cooper, also known officially from the 1930s as the **South Carolina Public Service Authority**, is South Carolina's state-owned electric and water utility that came into being during the New Deal as both a rural electrification and public works project that created two lakes and cleared large tracts of land while building hydro-electric dams and power plants.

As South Carolina's largest power producer, Santee Cooper directly serves more than two million customers in Berkeley, Georgetown and Horry counties. The utility is the primary source of power distributed by the state's 20 electric cooperatives and also supplies power directly to 29 large industrial customers.



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Crabtree cited the following benefit metrics associated with CCUS:

- The **oil and gas industry purchases ~ 70 million tons of CO₂ per year**, transports it over 4,500 miles of CO₂ pipelines and injects it to **yield 4% of domestic U.S. oil** production.
- The U.S. has the **potential to produce an estimated 28 billion barrels** of economically recoverable oil with today's industry best practices and over 81 billion barrels with next generation techniques.
- CO₂-EOR results in an estimated **net life cycle CO₂ emissions reduction of 37%**, including the additional oil produced, according to International Energy Agency (IEA) data.
- Provides fiscal benefits from royalties and taxes on oil production and directly supports high-paying jobs across a range of sectors.

In the U.S., commercial-scale CCUS technology has been employed for nearly 50 years.



National Enhanced Oil Recovery Initiative

The **National Enhanced Oil Recovery Initiative (NEORI)** is a coalition of coal, oil, electric power, ethanol, industrial and technology companies, labor unions and environmental organizations that has been advancing initiatives to accelerate the commercial deployment of carbon capture. NEORI's principal goal is to close the gap between the cost of CO₂

capture and pipeline transport, and the revenue received from the sale of CO₂ for use in EOR, driving private investment in technology deployment, innovation and cost reductions over time.

The Coalition's top priority is to extend, reform and expand the U.S. Federal Section 45Q tax credit for CO₂ storage. Since 2015, numerous Congressional bills have been introduced in both the House and the Senate to revise 45Q. The 45Q reform was not addressed in either the House or Senate version of the recent tax reform initiative. **Two bills, however, are now being considered that may prospectively be included in the tax extender legislation or a must-pass spending bill before year-end 2017.**

Senate S. 1535 – FUTURE Act – Furthering carbon capture, Utilization, Technology, Underground storage and Reduced Emissions. Introduced in July 2017 with one quarter of the U.S. Senate co-sponsoring the bill. Lead sponsors include Heitkamp (D-ND), Capito (R-WV), Whitehouse (D-RI), Barrasso (R-WY), Graham (R-SC) and Kaine (D-VA).

House H.R. 3761 – Carbon Capture Act – Introduced in the House Agriculture Committee by Chairman Conaway (R-TX) in November 2017 with 44 co-sponsors from 22 states spanning the political spectrum (32 Republicans and 12 Democrats).

Crabtree concluded his presentation noting that **“The time to act on 45Q is now. Extension and reform of 45Q is critical to future growth of the EOR industry and the domestic energy production, high wages and tax base it provides. Tell your Senators and Representatives to extend and reform the 45Q tax credit this year.”**

45Q Related Items

Global CCS Institute Releases Report on Global Status of CCS

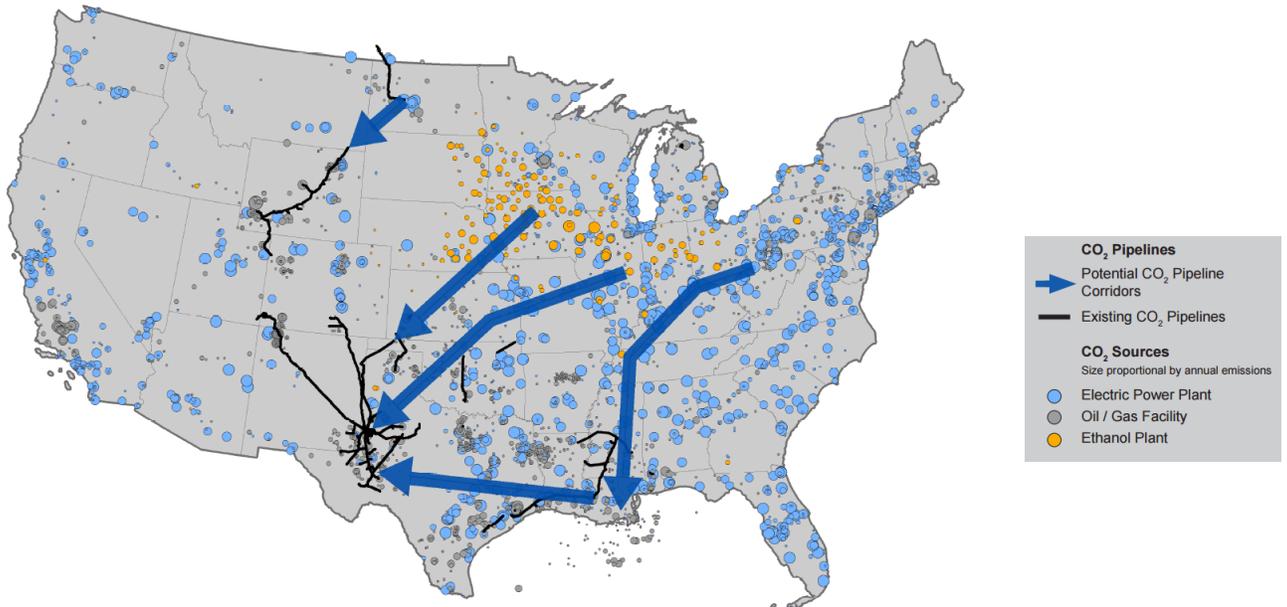
www.globalccsinstitute.com

Policy parity and the rapid acceleration of carbon capture and storage (CCS) facilities are imperative to meeting climate change objectives. GCCSI's newly released "Global Status of CCS Report: 2017" provides an accounting and assessment of CCS projects worldwide. The report notes a significant advance in the number of CCS facilities being deployed and awareness of CCS as a pivotal climate change solution.

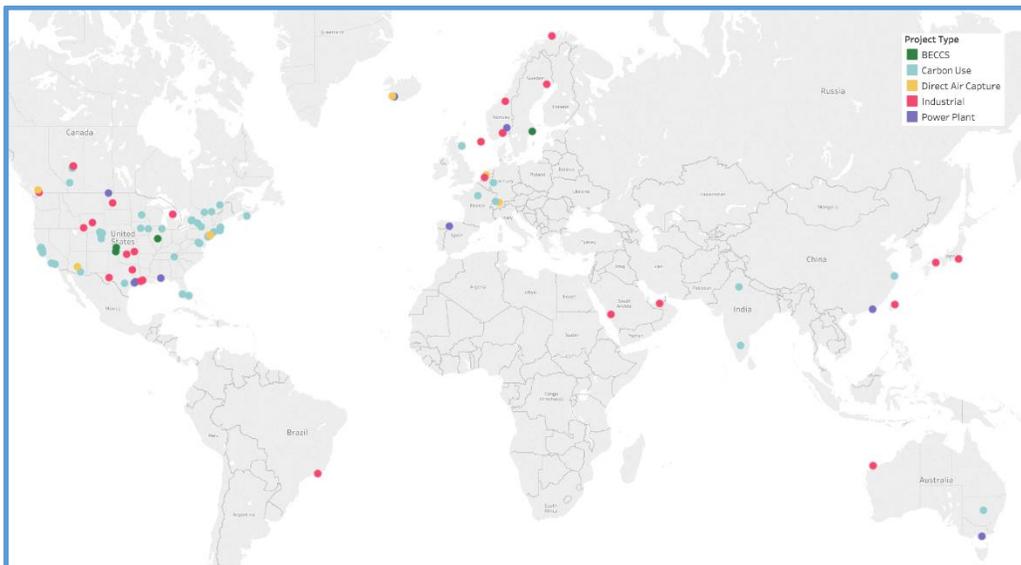
Map of Potential CO₂ Pipeline Corridors

Source: State CO₂-EOR Deployment Work Group

http://www.betterenergy.org/American_CO2_Pipeline_Infrastructure



Interactive Carbon Capture Projects Map



There are 102 carbon capture projects globally with 53 in the U.S.

Source: Third Way ~ <http://www.thirdway.org/graphic/carbon-capture-projects-map>



NCC ACTIVITIES & NEWS

2018 Spring Annual Meeting

April 11-12, Washington, DC

***NOTE PROGRAM AND ADMINISTRATIVE CHANGES UNDERWAY**

Members of the National Coal Council will host their 2018 Annual Spring Meeting on April 11-12. All events will be hosted at the Dupont Circle Hotel, 1143 New Hampshire Avenue, NW, Washington, DC.



***HOTEL RESERVATIONS**

The hotel is currently undergoing an ownership transition; hotel reservations will NOT be accepted at the hotel until sometime in January. We will provide a hotel reservation link as soon as it becomes available. Please do NOT contact the hotel until we can provide further instructions.

***MEETING REGISTRATION**

Meeting registration information will be emailed to NCC members and associates later this month. Meeting registration is NOT yet open. We will send out a meeting registration form very soon.

***NCC INC. DINNER**

Our 2018 Annual Spring Meeting will have a new feature ~ a keynote dinner will be hosted by NCC, Inc. the evening prior (April 11th) to the NCC Full Council Meeting (April 12th). The dinner will feature a keynote presentation and provide an extended networking opportunity for those interested in participating. Dinner prices range from \$150 (industry) to \$75 (government employees) and numerous sponsorship opportunities will be available, including discounted table sponsorships.

***LESS PAPER**

The NCC 2018 Spring Annual Meeting will be our first paperless event. Agendas, speaker bios and other meeting materials will be made available in advance of the meeting on the NCC website. A paperless meeting is good for the environment and NCC's budget!

If you are interested in working on the Spring Program Development Committee, please email Janet Gellici at jgellici@NCC1.org.



MORE NCC ACTIVITIES & NEWS

NCC MEETING LOCATION POLL

For the past three years, the National Coal Council has been hosting its Annual Fall Meetings in various locations throughout the U.S. – including Pittsburgh, Milwaukee and Birmingham. These “outside the DC beltway” locations provide an opportunity for NCC members to tour energy facilities, such as the National Energy Technology Lab, We Energies’ Oak Creek Supercritical Coal Plant, and the National Carbon Capture Center.

QUESTION: Where would you like to see NCC host its 2018 Fall Annual Meeting?
 What energy facility would you like to tour?
 Email us with your thoughts: info@NCC1.org

NCC CEO OUT & ABOUT

NCC CEO Janet Gellici has been on the road and in numerous meetings over the past month.

~ Participant in **Carbon Sequestration Leadership Forum**, Annual Financing Roundtable - Washington, DC (see photo right).

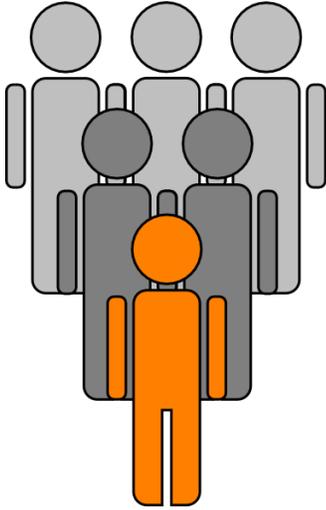
~ Speaker and attendee at **U.S.-China Clean Coal Industry Forum** in Morgantown, WV.

~ Speaker and attendee at **Carbon Management Workshop/CO₂-EOR Conference** in Midland, TX.

~ Attendee at **U.S. Association for Energy Economics-National Capital Area Chapter**, Washington, DC luncheon with **Tony Clark**, Senior Advisor at Wilkinson, Barker, Knauer, LCC and Former FERC Commissioner. Clark discussed forces that are shaping electricity markets today with an emphasis on the implications of the regulatory crossroads of federal jurisdiction and state public policy choices. Clark has authored a white paper on this topic entitled “Regulation and Markets: Ideas for Solving the Identify Crisis.”
[Clark White Paper on Market Identity Crisis](#)

Among his recommendations to States: “Make sure your state does not fall into the ‘One Piece at a Time’ trap. There is a great old **Johnny Cash** song, ‘One Piece at a Time,’ that tells the story of a General Motors assembly line employee that wants a Cadillac so badly that he decides to steal a Cadillac one piece at a time over a multi-decade career.” Learn out that turns out here:
<https://www.youtube.com/watch?v=5GhnV-6lqH8>





JOIN US! MEMBERS SOUGHT FOR 2018 NCC CHAIR'S LEADERSHIP COUNCIL

The National Coal Council has an increasingly important role to play under the Trump Administration and Energy Secretary Perry's leadership of the U.S. Department of Energy (DOE). The NCC Chair's Leadership Council (CLC) provides a opportunity to enhance your role within NCC and engagement with the DOE.

The NCC CLC is a coalition of coal industry leaders from varied disciplines drawn from the NCC membership. The CLC provides a forum for industry savvy, committed NCC members to provide strategic guidance to the Council, advising on plans and programs in pursuit of NCC objectives.

CLC members participate in small group meetings with U.S. DOE staff and with other industry leaders. The support of CLC members is acknowledged through special recognition on the NCC website, in issues of the NCC newsletter and at biannual meetings of the Council.

Membership in the NCC Chair's Leadership Council provides an opportunity for you to enhance your role in setting NCC's strategic agenda and in supporting the Council's business operations. Please consider enhancing your support of NCC with an additional financial contribution to and membership in the NCC Chair's Leadership Council in 2018.

Want to learn more? Contact Janet Gellici at jgellici@NCC1.or or 202-756-4524.

THANK YOU NCC 2017 MEMBERS CHAIR'S LEADERSHIP COUNCIL



News Worthy from the Department of Energy

U.S.-Saudis to Work Together on Carbon-Cutting Coal Technology

<https://www.energy.gov/articles/us-and-saudi-arabia-committed-advancing-research-and-collaboration-clean-fossil-fuels-and>



On December 4th, 2017, Energy Secretary Rick Perry met with H.E. Khalid Al Falih, Saudi Arabia's Minister of Energy, Industry and Mineral Resources and signed a Memorandum of Understanding (MOU) to establish a framework for mutually beneficial cooperation on the development of clean fossil fuels and carbon management.

Secretary Perry noted that "This MOU outlines a future alliance not only in supercritical carbon dioxide, but also in a range of clean fossil fuels and carbon management opportunities." Toward this end, the two countries will exchange experts, engineers and scientists, and will work to facilitate the transfer of technology.

Among the technologies anticipated to be addressed: supercritical CO₂ power cycles, CCUS, chemical looping, oxy-combustion and the energy-water nexus.

DOE Issues Final Report on Regulatory Review

[DOE Regulatory Reform Report October 2017](#)

In late October, DOE issued its final report in response to President Trump's Executive Order to promote energy independence and economic growth. The report identified several hurdles to domestic energy development and use and offered recommendations to eliminate those burdens.

High REE Concentrations Found in American Coal

<https://www.energy.gov/articles/high-concentrations-rare-earth-elements-found-american-coal-basins>



DOE's National Energy Technology Laboratory (NETL) has found high rare earth element (REE) concentrations in coal samples taken from the Illinois, Northern Appalachian, Central Appalachian, Rocky Mountain Coal basins and the Pennsylvania anthracite region. The discovery was made in partnership with West Virginia University, the University of Kentucky, Tetra Tech and the XLight Corporation.

In announcing the finding, Secretary Perry noted that "Rare Earth Elements are vital to the development and manufacturing of high-tech devices such as computers, cell phones, and our national defense systems. The current difficulties and high expense associated with REE extraction has left the U.S. dependent on foreign REE imports. Supporting innovative research and development to establish efficient, cost-effective REE extraction methods is critical to our country's energy and national security."



NETL Publishes New Issue of *Impact* Magazine

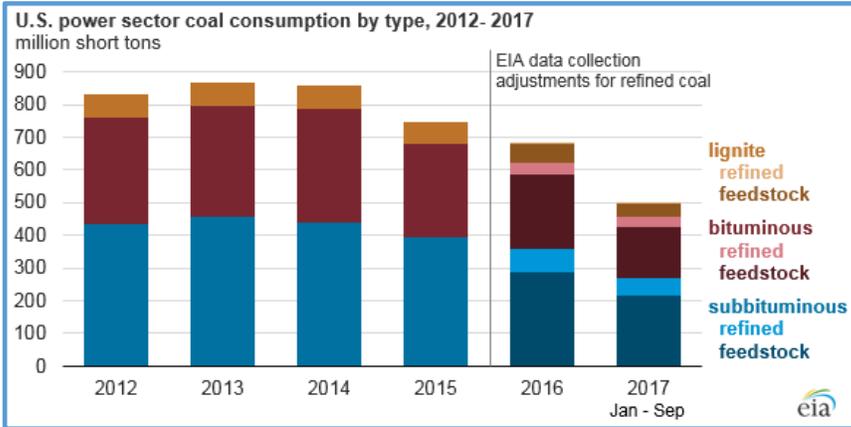
<https://netl.doe.gov/newsroom/netl-impact>

The latest issue of NETL's quarterly magazine explores how NETL research is enabling effective resource development and environmental sustainability.

More News Worthy from the Department of Energy

Refined Coal's Increased Use in U.S. Power Sector

<https://www.eia.gov/todayinenergy/detail.php?id=34092>



The U.S. power sector consumption of coal is increasingly shifting to refined coal which has increased from 17% in 2016 to 19% so far in 2017. Refined coal has been processed to remove certain pollutants from raw or feedstock coal.

U.S., Canada and Mexico Launch North American Energy Info Website

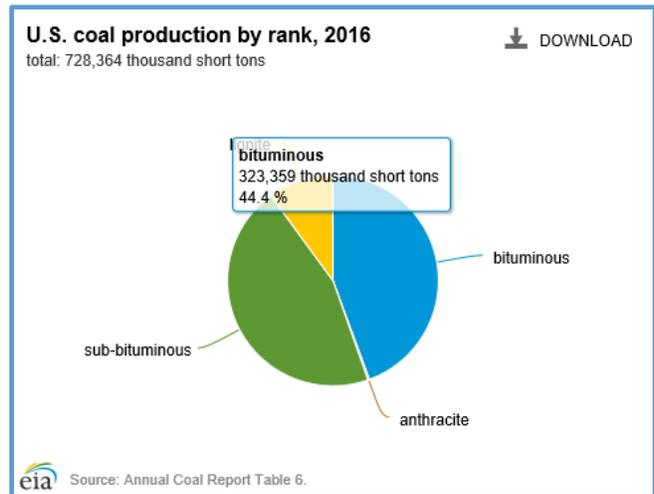
<https://www.eia.gov/todayinenergy/detail.php?id=33952>
<http://nacei.org/#!/overview>

Secretarial level representatives from the U.S., Canada and Mexico, including U.S. Energy Secretary Rick Perry, launched the North American Cooperation on Energy Information (NACEI) website. The site consolidates energy-related data, maps, analyses and references from the three countries in English, Spanish and French.

EIA Releases Annual Coal Report

<https://www.eia.gov/coal/annual/>

In November 2017, EIA released its Annual Coal Report which provides 2016 annual data on U.S. coal production, number of mines, productive capacity, recoverable reserves, employment, productivity, consumption, stocks and prices.



News Worthy from the Administration & Congress

House Hearing on “The Mission of EPA”

<https://energycommerce.house.gov/hearings/mission-u-s-environmental-protection-agency/>

Environmental Protection Agency (EPA) Administrator Scott Pruitt was the sole witness at a December 7th House Energy & Commerce Subcommittee hearing focused on the topic of “The Mission of the U.S. EPA.” Pruitt’s testimony and full video replay of the multi-hour hearing can be accessed via the above-noted link.



ODDS & ENDS



POLITICO *Pro*

Kudos to the folks at POLITICO Pro for offering a free copy of their “Essential Guide to the Executive Branch” which provides a 12-page refresh course on U.S. Executive Branch responsibilities and players, including Executive Branch roles in the budget and regulatory process.

<https://www.politico.com/pro/blog/guide-to-the-executive-branch>

A new report from the American Council for Capital Formation (ACCF) takes a closer look at the dire situation at the California Public Employees Retirement System (CalPERS) with unfunded liabilities growing from a surplus of \$2.9 billion in 2007 to a deficit of more than \$138 billion today. ACCF notes that one key factor behind this consistently poor performance is the tendency on the part of CalPERS management to make investment decisions based on political, social and environmental causes rather than factors that boost returns and maximize fund performance.

<http://accfcorp.gov/>

