

## The Future of Coal: Utilizing America's Abundant Energy Resources

### *Witnesses:*

**Mr. Chris Smith**

Acting Assistant Secretary for Fossil Energy, Department of Energy

**Mr. Ben Yamagata**

Executive Director, Coal Utilization Research Council

**Mr. Don Collins**

Chief Executive Officer, Western Research Institute

**Ms. Judi Greenwald**

Vice President, Center for Climate and Energy Solutions

### *Committee Members Present:*

Cynthia Lummis (R-WY), Subcommittee Chairman

Eric Swalwell (D-CA), Subcommittee Ranking Member

Eddie Bernice Johnson (D-TX), Full Committee Ranking Member

Randy Neugebauer (R-TX)

Marc Veasey (D-TX)

Thomas Massie (R-KY)

Mark Takano (D-CA)

Randy Weber (R-TX)

Ralph Hall (R-TX)

On July 25, 2013, the House Committee on Science, Space, and Technology Subcommittee on Energy held a hearing to discuss the future of coal in the United States. The hearing focused on the increasingly strict regulation of coal and the state of technologies for carbon capture, enhanced oil recovery, and high efficiency coal burning.

In her opening remarks, Subcommittee Chairwoman Cynthia Lummis (R-WY) criticized the President's policies on coal, calling them a "hostile attack" on the coal industry. She emphasized that, in addition to effectively prohibiting the development of new power plants, EPA's new power plant regulations have been cited as a contributing factor in the closing of "288" coal plants. Additionally, Lummis suggested that efforts to regulate domestic coal are negligible on a global scale, explaining "China continues to build a coal plant a week and global coal demand is projected to continue to grow significantly over the next half century, regardless of U.S. domestic policy."

In their testimonies, Subcommittee Ranking Member Eric Swalwell (D-CA) and Full Committee Ranking Member Eddie Bernice Johnson (D-TX) emphasized their interest in clean coal technologies, such as enhanced oil recovery and carbon capture and storage, as the US begins to move away from traditional energy sources and toward cleaner energies. Swalwell explained that new policies should not be seen as an attack on coal, but rather as a retreat from coal as the country moves toward cleaner energy resources.

Witness testimony focused on carbon capture utilization and storage and enhanced oil recovery as the primary use of captured carbon. Judi Greenwald, Vice President of the Center for Climate and Energy Solutions, explained that enhanced oil recovery "could double or triple U.S. oil reserves and store 10 to 20 billion tons of CO<sub>2</sub>," offering an opportunity to "transform an environmental problem into an energy solution." Chris Smith, acting Assistant Secretary for Fossil Energy at the Department of Energy (DOE), mentioned the DOE Draft Advanced Fossil Energy Solicitation, which provides \$8 billion for projects that focus on advanced carbon capture and storage, improved energy efficiency of coal, low-carbon power systems, and advanced research development of fossil fuel technologies.

Questioning focused on pending EPA regulations, climate change, and new coal technologies. Thomas Massie (R-KY) and Randy Neugebauer (R-TX) asked about pending EPA emission regulations, which may require new coal power plants to utilize carbon capture technologies that are not currently available on an industrial level. Neugebauer asked Smith about the status of this technology and what will happen if the technology does not become available. Smith responded that the technology for carbon capture is fairly well understood, and that DOE is working to bring costs down for commercial release. The DOE, Smith said, is also involved in the pending EPA regulations, and is working with EPA and industry to shape the regulations.

Many questions revolved around climate change, the President's "all-of-the above" energy strategy, and the "war on coal." All

witnesses seemed to agree that human-caused greenhouse gas emissions contribute to climate change, although Don Collins, the Chief Executive Officer at Western Research Institute, stressed that there are many natural cycles which also contribute to climate change. Smith and Greenwald agreed that the President is working toward an “all-of-the-above” energy strategy, and the “war on coal” is, if anything, supporting the coal community by creating the technology necessary for coal to keep up with regulations. The last area of questioning revolved around coal technology that will improve the efficient use of coal. Collins spoke about two developing technologies, water extraction and a bacteria process, which would both improve energy utilization from coal. Water extraction involves recovering water produced through the removal of moisture from low-grade coal; reuse of this water could cut water consumption at power plants by up to 60 percent. The bacteria process that consumes CO<sub>2</sub> and produces biocrude oil, turns the carbon in coal into an additional economic resource. Collins said that since we live in a carbon-rich world we should explore different ways to utilize this resource, instead of focusing on carbon-free technologies.

Opening statements and witness testimony, as well as a video archive of the entire hearing, is available from the committee web site

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