FutureGen Industrial Alliance to Pioneer Development of First Near-Zero Emissions Electricity and Hydrogen Production Facility

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A coalition of the largest electric utilities and coal companies in the United States today announced that they have created the FutureGen Industrial Alliance, a non-profit company that will partner with the U.S. Department of Energy (DOE) to facilitate the design, construction and operation of the world's first near-zero emissions coal-based power plant.

FutureGen will demonstrate advanced coal-based technologies to generate electricity for families and businesses, and also produce hydrogen to power fuel cells for transportation and other energy needs. The technology also will integrate the capture of carbon emissions with carbon sequestration, helping to address the issue of climate change as energy demand continues to grow worldwide.

The 275 megawatt plant will be developed through a public-private partnership led by the seven founding FutureGen Industrial Alliance members that include:

-- American Electric Power
-- BHP Billiton
-- CONSOL Energy Inc.
-- Foundation Coal Corporation
-- Kennecott Energy Company, a member of the Rio Tinto group
-- Peabody Energy
-- Southern Company

Because of the global interest in meeting energy demands and improving emissions, membership in the Alliance is open to other U.S. and international companies. The Alliance is presently in discussions with the China Huaneng Group, which is the largest Peoples Republic of China-based energy company primarily engaged in coal-fueled power generation. The Huaneng Group has expressed an interest in joining the Alliance in the very near future. The Alliance is also in discussions with other companies and expects membership to grow.

Formation of FutureGen Alliance was coordinated by Battelle, a non-profit research and development institution. The Alliance is working with DOE to secure a final agreement for FutureGen. Once an agreement is reached, the process would proceed to site selection and plant design.

"FutureGen is an opportunity to develop and deploy breakthrough technology that would allow the United States and the world to use an abundant resource in meeting long-term global energy challenges," said FutureGen Alliance Chairman Dr. Charles Goodman, Senior Vice President of Generation Policy for Southern Company. "FutureGen can help ensure the continued availability of affordable electricity, lead our nation to more energy independence -- and an even cleaner environment -- as well as addressing concerns related to carbon emissions and climate change."

The Alliance member companies:

-- provide energy to tens of millions of U.S. residential, business and industrial customers,
-- mine and market all major coal types,
-- have major operations across the United States,
-- have an international presence that spans the globe, including the United Kingdom, continental Europe, Canada, Mexico, Australia and Asia, among other regions.

Beyond creating ultra-clean electricity from coal, FutureGen is being developed to transform the nation's transportation fleet from reliance on petroleum to clean hydrogen. The U.S. Department of Energy estimates that increasing coal production by 330 million tons per year would satisfy 50 percent of the nation's transportation requirements for the Freedom Car initiative.

The vision was conceptualized during the Clinton Administration through the Vision 21 Program and developed by the Bush Administration through the $1 billion FutureGen initiative. FutureGen also supports the use of technology development to address climate change concerns, energy and sustainable development as supported by both The Gleneagles Communique issued at the most- recent G8 summit, and the Asia-Pacific Partnership on Clean Development.

"Cutting-edge technology will be employed throughout this prototype plant," according to FutureGen acting Chief Executive Officer Michael Mudd, American Electric Power's Program Manager of Technology Development. "The facility is also expected to provide a platform for researchers to test new and innovative technologies."

The plant will gasify the coal through a process that converts the coal's carbon to a synthesis gas composed of hydrogen and carbon monoxide. The synthesis gas will react with steam to produce additional hydrogen and a concentrated stream of carbon dioxide.

The hydrogen will be used as a clean fuel for electricity generation in turbines, fuel cells or hybrid combinations of these technologies. The captured carbon dioxide will be separated from the hydrogen and permanently sequestered in deep, unmineable coal seams, deep saline aquifers or other geologic formations. Carbon sequestration activities will be monitored over time to assess their effectiveness and potential applicability in various settings around the globe.

Coal fuels more than 50 percent of electricity in the United States and provides more than two-and-a-half centuries of energy security. Coal used for electricity generation has tripled since 1970, while emissions from coal have been reduced by one-third.

ABOUT THE PARTICIPANTS:

American Electric Power , American Electric Power owns more than 36,000 megawatts of generating capacity in the United States and is the nation's largest electricity generator. AEP is also one of the largest electric utilities in the United States, with more than 5 million customers linked to AEP's 11-state electricity transmission and distribution grid. The company is based in Columbus, Ohio. (http://www.aep.com/)

BHP Billiton (NYSE: BHP; BBL; ASX, LSE) is the world's largest diversified resources company. BHP Billiton has 35,000 employees working in more than 100 operations in approximately 20 countries. BHP Billiton is an industry leader in major commodity businesses, including aluminium, energy coal and metallurgical coal, copper, ferro-alloys, nickel, iron ore, uranium, nickel and titanium minerals and has substantial interests in oil, gas, liquefied natural gas, diamonds and silver. For the 2005 fiscal year, the company generated turnover of US$31.8 billion, earnings before interest and tax (EBIT) of US$9.3 billion and available cash flow of US$8.7 billion. As of 19 August 2005, BHP Billion's market capitalization was US$92 billion. (http://www.bhpbilliton.com/)

Battelle is one of the world's largest non-profit, private research and development institutions. It develops new technologies, commercializes products, and provides solutions for industry and government ranging from pharmaceuticals and medical product development, to innovations for the energy, automotive, chemical and agrochemical industries. Headquartered in Columbus, Ohio, Battelle has annual revenues of $1 billion and more than 60 locations throughout the world. (http://www.battelle.org/)

CONSOL Energy Inc. is the largest producer of high-Btu bituminous coal in the United States, and one of the largest exporters of U.S. coal. CONSOL Energy has bituminous coal mining complexes in six states. CONSOL produces both high-Btu coal and gas, which collectively fuels two- thirds of all U.S. power generation from reserves located mainly east of the Mississippi River. CONSOL Energy is a major fuel supplier to the electric power industry in the northeast quadrant of the United States. CONSOL Energy has expanded the use of its vast property holdings by developing various industrial and retail development projects and overseeing timber sale and forestry management activities both in the United States and abroad. The company also maintains private research and development facilities devoted exclusively to coal and energy utilization and production. (

http://www.consolenergy.com/)

Foundation Coal is the nation's fifth largest coal producer, with annual production of approximately 67 million tons of coal and controls approximately 1.8 billion tons of proven and probable coal reserves. Its affiliates operate mines in the Powder River, Illinois, Northern Appalachia and Central Appalachia basins. Foundation supplies coal to more than 80 customers across the country. (http://www.foundationcoal.com/)

Peabody Energy is the world's largest coal company, with 2004 sales of 227 million tons and $3.6 billion in revenues. Its coal products fuel more than 10 percent of all U.S. electricity and 3 percent of worldwide electricity. Peabody serves customers in more than 15 countries on five continents, and leads all coal companies with 9.6 billion tons of coal reserves. The company is serving global coal demand for electricity generators and steelmakers, and is growing to serve new global customers and emerging "Btu Conversion" markets. Peabody promotes continuous environmental improvement through coal mining and coal use and is advancing the next generation of clean coal technology through development of mine-mouth electricity generating stations that will be among the cleanest coal plants in America. (http://www.peabodyenergy.com/)

Rio Tinto is a world leader in finding, mining and processing the earth's mineral resources, operating in 20 countries with approximately 33,000 employees. The Group's worldwide operations supply essential minerals and metals that help to meet global needs and contribute to improvements in living standards. Rio Tinto is a major producer of energy products such as low-sulfur coal for power plants, metallurgical coking coal and uranium oxide. Other products include copper, aluminium, iron ore, industrial minerals, diamonds and gold. In order to deliver superior returns to shareholders over time, Rio Tinto takes a long term and responsible approach to the Group's business. In 2004, Rio Tinto's earnings were US$2,221 million, with nearly US$16 billion in operating assets. Rio Tinto is committed to helping develop low GHG emissions pathways that will allow its products to continue to meet the needs of society. Promoting the advancement of clean coal technology is just one of the ways in which this effort is being carried out. The majority (54%) of Rio Tinto's operations are located in North America and Australia. (http://www.riotinto.com/)

Kennecott Energy Company is part of the Rio Tinto Group. KEC operates five coal mines in the western United States: the Antelope, Cordero Rojo, and Jacobs Ranch mines in Wyoming's Southern Powder River Basin; the Spring Creek mine in Montana; and the Colowyo Coal Company in northeastern Colorado. The company's other holdings include a 50/50 joint venture interest in Decker Coal, a Montana coal producer. (http://www.kennecottenergy.com/)

Southern Company has more than 4 million customers and nearly 39,000 megawatts of generating capacity. Southern Company is the premier super-regional energy company in the Southeast and a leading U.S. producer of electricity. Southern Company owns electric utilities in four states, a growing competitive generation company, an energy services business and a competitive retail natural gas business, as well as fiber optics and wireless communications. Southern Company brands are known for excellent customer service, high reliability and retail electric prices that are 15 percent below the national average.

In Wilsonville, Alabama, Southern Company hosts the Power Systems Development Facility (PSDF), which is the nation's premier facility for testing innovative power generation and emission control systems. Operation of PSDF is co-sponsored by the U.S. Department of Energy Office of Fossil Energy / National Energy Technology Laboratory, Southern Company; EPRI; Kellogg, Brown and Root; Peabody Energy; Burlington Northern and Siemens Westinghouse Power Corporation. (http://www.southerncompany.com/)

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