

Peabody Energy and GreatPoint Energy Announce Agreement to Pursue Development of Coal-to-Gas and Coal-to-Hydrogen Facilities with Carbon Capture and Storage

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Peabody Energy and GreatPoint Energy today announced they have signed an agreement to pursue development of coal-to-gas and coal-to-hydrogen projects in the United States and around the world with carbon capture and storage (CCS) that would achieve near-zero carbon emissions while liberating vast quantities of stranded oil.

The projects would be developed using GreatPoint's proprietary Bluegas™ technology, which utilizes catalytic hydromethanation to create pure hydrogen and substitute natural gas (SNG). This process is more efficient and cost effective than conventional gasification. The hydrogen will be used for industrial applications or combusted to generate near-zero carbon electricity. The SNG can be transported in the existing pipeline infrastructure and used as fuel in home heating, power plants or industrial processes.

"Peabody is advancing multiple projects with GreatPoint Energy using 21st Century technologies for greater utilization of coal in a low-carbon economy," said Fredrick D. Palmer, Peabody's Senior Vice President of Government Relations and head of the company's Btu Conversion activities. "Greater deployment of green coal with carbon capture is a clean energy solution."

Catalytic hydromethanation, when combined with advanced power generation, could eliminate more than 90 percent of carbon emissions and nearly double the efficiency of conventional coal combustion or Integrated Gasification Combined Cycle power plants, according to a recently published study by the U.S. Department of Energy's National Energy Technology Laboratory.

The technology captures the carbon dioxide (CO₂), which can be used for domestic oil production through enhanced oil recovery. The U.S. Department of Energy estimates that there are more than 60 billion barrels of stranded U.S. oil, and the International Energy Agency estimates there are more than 200 billion barrels of stranded oil worldwide. These resources could be recovered with injection of captured CO₂.

"We are extremely pleased to expand our relationship with Peabody, who we view as one of the world's most forward thinking energy companies and the leading proponent of clean uses for coal," said Andrew Perlman, President and Chief Executive Officer of GreatPoint Energy.

"We believe that chemically converting coal into low- and near-zero carbon fuels represents the absolute fastest, largest-scale, and lowest-cost solution to reducing carbon dioxide emissions."

About Peabody Energy

Peabody Energy is the world's largest private-sector coal company, with 2009 sales of 244 million tons and \$6 billion in revenues. Its coal products fuel 10 percent of all U.S. electricity generation and 2 percent of worldwide electricity.

Peabody is a global leader in clean coal solutions, advancing near-zero emissions and carbon management. Peabody is the only non-Chinese equity partner in GreenGen; a founding member of the FutureGen Alliance; and a founding partner of COAL21 in Australia. The company is a founding member of the Global Carbon Capture and Storage Institute and is pursuing commercialization of clean coal technologies through the U.S.-China energy Cooperation Program; the Asia-Pacific Partnership for Clean Development and Climate; the Consortium for Clean Coal Utilization, the National Carbon Capture and Storage Center; and others.

About GreatPoint Energy

GreatPoint Energy is the leading developer of highly-efficient catalytic hydromethanation technology, known as

Bluegas™, by which coal, petroleum coke and biomass are converted directly into low-cost, clean, pipeline-quality natural gas, hydrogen and hydrogen-based power while allowing for the capture and sequestration of CO2 for enhanced oil recovery.

The company has raised over \$150 million in equity and is backed by leading strategic investors including Peabody Energy, AES, Suncor Energy, Dow Chemical, Kleiner Perkins, and Khosla Ventures. GreatPoint is also recognized as a Top 50 Going Green Company by AlwaysOn.

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