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Committee on Resources
Unites States House of Representatives

The Future of Federal Coal: Status, Availability and Impact of Technological Advances in Using Coal to Create Alternative Energy Resources
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Thank you Mr. Chairman. Honorable Members of the Committee, I am John Ward, Vice President of Headwaters Incorporated, on whose behalf I am testifying today. I also serve as President of the American Coal Council and as a member of the National Coal Council as appointed by the Secretary of Energy.

Headwaters Incorporated is a New York Stock Exchange company that provides an array of energy services. We are a leading provider of pre-combustion clean coal technologies for power generation, including coal cleaning, upgrading and treatment. We are the nation's largest manager of coal combustion products, marketing coal ash from more than 100 power plants nationwide. We have built a large construction materials manufacturing business and incorporated coal ash in many of our products. We are currently commercializing technologies for upgrading heavy oil and we are entering the ethanol fuels market by constructing our first ethanol production facility in North Dakota. And we are active as both a technology provider and a project developer in the field of coal-to-liquid fuels.

Other witnesses will testify regarding the technologies associated with converting coal into liquid transportation fuels and the superior performance and environmental characteristics of the fuels themselves. I will focus my remarks on what it will take to successfully deploy these technologies in the United States. To do that, a historical perspective may be helpful.

Headwaters and its predecessors have been engaged in coal-to-liquids technologies since the late 1940s. Our alternative fuels division is comprised of the former research and development arm of Husky Oil and holds approximately two dozen patents and patents pending related to coal-to-liquids technologies.

In the late 1940s, this group designed the first high temperature Fischer Tropsch conversion plant which operated from 1950 to 1955 in Brownsville, Texas. It produced liquid fuels commercially at a rate of 7,000 barrels per day. Why did it shut down? The discovery of oil in Saudi Arabia.

The Arab oil embargo of 1973 reignited interest in using domestic energy resources such as coal for producing transportation fuels. From 1975 to 2000, our researchers were prime developers of direct coal liquefaction technology. This effort, which received more than $3 billion of federal research funding, led to the completion of an1,800 barrel per day demonstration plant in Catlettsburg, Kentucky. Why did deployment activities cease there? OPEC drove oil prices to lows that left new technologies unable to enter the market and compete.

Today, our nation finds itself in another energy crisis. Oil costs $75 per barrel and comes from unstable parts of the world. There is little spare production and refining capacity and our refineries are concentrated in areas susceptible to natural disasters or terrorist attacks. And once again, our nation is considering coal as a source for liquid transportation fuels. The question is: What can we do this time to ensure that the technologies are fully deployed?

To begin, consider how coal-to-liquids deployment is being approached in different parts of the world.

In China, the government has already committed more than $30 billion to commercialization of coal gasification and liquefaction technologies. Headwaters has licensed its direct coal liquefaction technology to a Chinese company that is currently constructing a 17,000 barrel per day facility in Inner Mongolia. We have additional technology licensing and feasibility study activities under way in India, the Philippines, and another Asian country. In all of those locations, the central governments recognize that they have an important role to play in stimulating the creation of a new coal-to-liquids industry.

In the United States, Headwaters is pursuing development of coal-to-liquids projects using private sector financing. Here at home, we are not pursuing direct coal liquefaction projects because they have not yet been demonstrated at commercial scale and therefore are not likely to be financed in private markets. Even indirect coal liquefaction technology of the type used commercially in South Africa for decades is viewed by American financial markets as “new,” and therefore riskier, technology.

One of the projects we are pursuing in the United States is located in North Dakota. The project features ample coal reserves, highly qualified development partners, and substantial existing infrastructure to support the facility. The State of North Dakota has been exceptionally supportive and stands ready to contribute significant resources to the development of the project. But the project’s viability is by no means certain. The task of raising between $1 billion and $4 billion to build one of the first American coal-to-liquids refineries is daunting – especially for smaller companies like ours.

Headwaters does not advocate abandoning America’s open and efficient financial markets for a centralized system like China’s. But the United States should recognize

that just because a technology is no longer a research project does not mean that the free market is ready to fully embrace it.

If Congress desires creation of a coal-to-liquids industry to enhance energy security, boost domestic economic development, and improve environmental performance of fuels, then Congress must help industry overcome the substantial risks associated with deploying the first plants.

Headwaters recommends five specific federal actions to help overcome deployment barriers:

1. Provide funding, through non-recourse loans or grants, for Front End Engineering and Design (FEED) activities. These activities are necessary to define projects sufficiently to seek project financing in the private sector. FEED for a billion dollar project can cost upwards of $50 million.

2. Provide markets for the fuel produced by the first coal-to-liquids plants. Federal agencies like the Department of Defense are major consumers of liquid fuels. By agreeing to purchase coal derived fuels at market value, but not lower than a prescribed minimum price, the government can remove the risk of reductions in oil prices that could stop development of this industry.

3. Extend excise tax credit treatment for coal derived fuels. Last year's Transportation Bill extended to coal-derived fuels the approximately 50 cents per gallon excise tax credit that was originally created as an incentive for ethanol production. But the provision as now enacted will expire before any coal-to-liquids facilities could be placed in service.

4. Appropriate funds for loan guarantees authorized in the Energy Policy Act of 2005 and ensure that those funds are made available to coal-to-liquids projects.

5. Ensure that industrial gasification tax credits authorized in the Energy Policy Act of 2005 are also extended to coal-to-liquids projects.

Combined with support from states and local communities anxious to see development of coal resources, these actions would help private industry bridge the deployment gap and establish a coal-to-liquids capability for our nation. Some of the dollars we now send overseas to buy oil would be kept at home to develop American jobs utilizing American energy resources. We would expand and diversify our liquid fuels production and refining capacity. We would produce clean-burning fuels that can be distributed through our existing pipelines and service stations to fuel our existing vehicles with no modifications to their engines. We would take a real and immediate step toward greater energy security.

Thank you for your interest. I would be happy to answer any questions.