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TESTIMONY FOR J. F. ROBERTS BEFORE SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES –
MONDAY, APRIL 24, 2006 – COAL GASIFICATION AND
LIQUEFACTION TECHNOLOGY

Thank you, Mr. Chairman. I'm James F. Roberts, President and CEO of Foundation Coal Corporation, one of the leading coal producers in the United States. I'm appearing this afternoon on behalf of the National Mining Association, which I presently serve as Vice Chairman.

NMA and its members applaud you and your colleagues for hosting this very timely and constructive hearing. We are confident that coal gasification can make America stronger through cleaner and more efficient use of its unrivalled coal reserves – leading to clean, high quality transportation fuel, an abundant feedstock to produce ethanol and affordable energy to power our industrial facilities.

Coal is meeting America's immediate energy needs and is poised to play a major role in the development of long-term technologies in a hydrogen-based economy, such as fuel

cells. In short, coal is the energy of America's past, present and future.

It is about our nation's energy future that I am most concerned.

Increasingly today, energy security has come to be viewed not just as one among many national goals but as a vital national imperative. Across the world, energy has become the linchpin of economic competitiveness, forcing the U.S. and its industrial competitors to strategically reassess their energy supplies and resources.

In a way, we have all been here before. The call for greater energy security through lessening our dependence on foreign energy has resounded several times in recent decades. The call was first heard during the Arab oil embargo in 1973, when President Nixon launched Project Independence. It was echoed subsequently during the Ford, Carter and Reagan presidencies and during both Bush presidencies

Unfortunately our repeated failure to break what President Bush so correctly called our addiction to foreign oil raises doubt amongst many of us that we will succeed this time.

And yet never before has the price of failure been as great as it is today.

We have so far avoided the dire consequences of our dependence on imported energy largely because the relatively low price of oil shielded us from them. However, at today's prices – let alone at projected prices – it is unlikely our economy will remain unscathed for much longer. We literally can no longer afford the complacency of past decades. The argument for concerted, bipartisan action to strengthen energy security is greater now than ever before.

Increasingly, a secure America in the 21st century will mean energy security. This brings us to the nation's abundant and affordable coal reserves – and the purpose of this hearing.

America's coal reserves can provide us with an invaluable hedge against our growing addiction to imported energy, and provide a significant source of fuel for a growing economy. Congress acknowledged this fact in the Energy Policy Act of 2005, which encourages the development of alternative fuels such as coal-to-liquid transportation fuels and coal-derived natural gas substitutes.

But while Congress was far-sighted last year in appreciating the need for more sustained and determined action to decrease our reliance on foreign energy, the response it proposed – while necessary – is not nearly sufficient to the challenge we now face. Consider the following circumstances that argue strongly for greater reliance on domestic fuels such as coal.

First, the U.S. is projected to import a greater share of its growing oil needs. While our daily oil requirements are projected to increase from 20 million barrels a day currently to 28 million by 2030, our domestic oil supply is projected to flatten after a modest rise to a mere 10 million barrels per day. The result, according to The Energy Information Administration (EIA), is that net imports will make up 62% of our total oil supply.

Bear in mind this is a very conservative estimate, as EIA assumes a percentage of U.S. projected oil imports will be satisfied by liquefied coal fuel. Absent large scale development of this fuel source, net imports will be significantly higher. And as I believe others here will testify, this development is unlikely to materialize without additional incentives.

Second, the oil we import will continue to come from unfriendly or unstable regimes – simply because these regimes have the oil we use. Our reliance on the Middle East alone obligates the U.S. to maintain and deploy armed forces at enormous cost. Oil imports from the region also force the U.S. to shoulder the burden of an enormous trade deficit as well.

Third, energy has clearly become a central objective in the geopolitical struggle to secure global raw material supplies. China's energy demands alone are having – and will continue to have – a significant impact on global oil prices. The Congressional Budget Office recently estimated if China continues its current rate of growth, its unquenchable thirst for oil will force US consumers to pay another 38 cents per gallon of gas in five years.

In other words, no matter the perspective from which we examine our dependence on foreign oil, the unavoidable truth is that it makes our nation less secure.

There is one consolation from the high oil and natural gas prices we are continuing to pay. It is the compelling incentives we now have to act decisively by developing energy alternatives from coal gasification – and from coal

liquefaction. At even the most conservative levels projected, oil prices are expected to be high enough to make this technology economic to implement and the fuel it yields economic to produce.

Certainly EIA believes so. In its most recent energy outlook, EIA projects that coal-derived fuels will constitute 8% of our expected oil import requirements by 2030. But NMA believes this projection, much like the Energy Act of 2005, is too timid a response given the more urgent circumstances the nation now faces. A more appropriate target, we believe, comes from the Southern States Energy Board, which expects alternative fuels such as liquefied coal to replace approximately 5% of imported oil each year for 20 years beginning no later than 2010.

This estimate stems not only from the rising prices of oil, but also from the abundant supply of secure coal within our own borders. U.S. recoverable coal reserves of 275 billion tons is the energy equivalent of 550 billion barrels of oil. To put this enormous strategic resource into perspective, Illinois's coal reserves alone boast a greater BTU content than all the oil in Iran, Iraq, Kuwait and Saudi Arabia.

This is a resource that no foreign government can nationalize – that requires no costly armed forces to protect – and no exploration budget to locate.

Nor does coal-to-liquids technology require R&D funding. The requisite gasification and liquefaction technology has been in use for decades in oil-deprived countries with coal reserves. In South Africa, for example, liquefied coal has furnished as much as 60% of that country's transportation fuels.

Finally – and particularly appropriate for Earth Day this weekend – the high-grade diesel fuel produced from coal gasification is very clean. The low particulate, low mercury and almost zero sulfur emission profile of gasified coal will mean reduced tailpipe emissions, cleaner-running mass transit systems and no measurable toxic pollutants. Moreover, the coal-to-liquid (CTL) process can capture carbon dioxide for use in enhanced oil and coal bed methane recovery, or for sequestration deep underground. The fuel will be produced domestically under the most comprehensive environmental laws in the world.

The strategic justification, the supply of coal required and the technology for using it cleanly are all in place to put the

U.S. on the path toward greater energy independence. We lack only the will – the determination to make this objective a strategic imperative commensurate to the gathering risk we face from our growing dependence on imported energy.

One sign of this determination would be a commitment from Congress to provide the financial assistance required to cover the front-end engineering and design costs of building coal liquefaction plants. For despite higher global prices for oil and gas today, there is no guarantee that tomorrow the relatively small number of producing countries will not manipulate the price of their resources long enough to discourage private sector investment in alternative fuels. The government's participation will therefore be critical for offsetting this risk of marketplace manipulation by jump-starting domestic production on the scale we will need.

This is simply an acknowledgement that private sector financing in the face of such risks is unavailable for costly, unconventional technologies that have not been widely used in the U.S.

Certainly China appreciates the need for public sector participation. Like the U.S., China boasts enormous coal reserves – second only to our own. Like the U.S., it too

satisfies most of its energy needs with imported oil, again second only to the U.S. – and consequently it also faces a growing oil import bill in the years ahead.

But unlike the U.S., China eschews incremental solutions in favor of bold ones. It plans to secure its future prosperity by investing some \$30 billion in coal gasification and liquefaction technology. It understands that government participation is the only way to insulate its fledgling liquefaction industry against a concerted effort by OPEC to destroy it.

China has evidently concluded that a different world calls for different approaches.

I urge this committee to think not about the *similarities* between the oil issues today and those of past years, but about the *differences* that mark today's energy situation from that of the past. And from these differences, I hope you will draw the conclusion that we too must act differently than we have in the past.

Thank you, again, for this opportunity. I'm happy to answer any questions you may have.