UT Arlington licenses innovative process to convert natural gas to clean, synthetic fuel

June 6 2011

The University of Texas at Arlington announces a licensing agreement with 1st Resource Group Inc. of Fort Worth to commercialize a new, efficient process for converting natural gas to clean, synthetic fuel at a cost lower than current market rates.

UT Arlington engineering and science researchers have designed a portable conversion unit that transforms natural gas from the field for use as clean-burning, synthetic fuels.

1st Resource has partnered with UMED Holdings Inc., a Fort Worth-based, publicly traded company, to aid in commercializing the patent-pending process. 1st Resource plans to deploy conversion units in domestic and international gas fields to yield synthetic jet fuels and diesel.

The application is expected to be particularly useful in stranded gas fields, on sites where natural gas must be vented or flared and when it is not economically viable to move gas to a pipeline due to adverse market conditions.

“We believe the reception we will receive on Wall Street will be favorable,” Randy Moseley, chairman of the UMED Holdings board of directors, said in announcing the partnership.

UT Arlington President James D. Spaniolo said the licensing agreement is a milestone in the University’s relationship with busin

ess and industry.

“This advancement demonstrates how university research can respond to market demands,” Spaniolo said. “All of us understand the need to lower fuel costs and develop clean energy resources. We believe this agreement is the start of an important and long-lasting relationship with 1st Resource, UMED, and their partners.”

Douglas McKinnon, 1st Resource president and chief executive officer, said his firm approached UT Arlington researchers to determine if a portable gas-to-liquids processing unit could be developed that could be easily moved from one well to the next.

“The researchers proved it could be done,” McKinnon said. “This process starts to solve the rising transportation costs we all face.”

Gary Fewell, chief operations officer for 1st Resource, said the venture will succeed because natural gas prices are low and reserves are plentiful. He said the portability of the system also makes it attractive.

“When you have a rancher sitting on a natural gas well, and that gas can be converted to an energy source like jet fuel, he is suddenly sitting on a gold mine,” Fewell said.

The cost savings in transporting the jet fuel alone could be substantial, Fewell said, because the conversion happens at the natural gas well site and doesn’t have to go through additional refining steps like oil.

Ric Halden, president of UMED Holdings, said the cutting-edge process could help reduce foreign dependency on crude oil.

“That’s a goal we hope to accomplish,” Halden said. “Suffice it to say that the cost savings from an ecological standpoint are immeasurable. It

is a green project just because of the processes it could eliminate."

Provided by University of Texas at Arlington