

BEFORE FUEL, COAL NOW BECOMES FERTILIZERS

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TransGas and ThyssenKrupp will extract gas from coal and then produce fertilizers. A new technology for Brazil that can cut imports by 10 per cent, explain executives.

TransGas, an American company, and Germany's ThyssenKrupp are bringing to Brazil a new technology for the production of fertilizers from coal. The technology extracts synthetic gas, also called syngas, from the coal. By using this gas, it will be possible to produce ammonia-based fertilizers, such as ammonium nitrate and urea.

Adam Victor, President of TransGas, says that the technology, besides being clean, opens a new frontier for gas in Brazil.

The country has few natural gas reserves and relies on gas imports to meet the domestic demand. However, the cost of operation is considered high. For every million BTUs of imported gas (thermal unit used to measure the amount of gas), the country pays about \$ 11.

The gas extracted from coal costs \$ 1 per million BTUs.

"This puts Brazil in a select group of countries that have initiated a revolution in the carbochemical industry," he says.

Michael Kaiser, vice president of the engineering division of ThyssenKrupp, which owns the technology, says that natural gas tends to diminish its importance as a fuel, due to operational difficulties and high cost. "There is no need to

get gas in the pre-salt; we are looking at coal that is 30-feet deep," says Mr. Kaiser.

Executives say the project will consume \$ 3 billion in the first four years, which consists of the implementation period of the plant. The companies' expectation is that the project will start off the ground in 2015.

High Demand

The plant aims to tackle a Brazilian deficiency, which is the domestic production of fertilizers. According to the National Association for the Promotion of Fertilizers (Anda), the country consumed 31 million tons of fertilizers in 2013. From this total, 70 per cent was imported.

The expectation of TransGas is to produce 2.1 million tons of fertilizers per year, which represents 10 per cent of what was imported last year.

The new plant will compete with the new fertilizers plants from Petrobras. The State Company has four ongoing projects in the cities of Três Lagoas (MS), Uberaba (MG), Camaçari (BA) and Vitória (ES).

Despite these new units, Rafael Otto, Ph.D. in soil science from the University of São Paulo (USP), says Brazil will still be depending on importing about 30 per cent of its fertilizers.

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<http://www1.folha.uol.com.br/mercado/2014/09/1511945-antes-combustivel-carvao-mineral-vira-fertilizante.shtml>