

Eni - Agreement for exploration and exploitation of non-conventional oil in tar sands

The agreement signed today in Pointe Noire between the Energy Minister of the Republic of Congo, Bruno Itoua, and Eni CEO Paolo Scaroni regards the exploration and production of non-conventional oils in tar sands. The projects are located in two areas known as Tchikatanga and Tchikatanga-Makola, to which Eni was assigned exclusive rights on April 3, 2008 by government decree.

The two areas, located about 70km from Pointe Noire and covering a total of 1790 square kilometres, contain reserves of tar sands whose potential, according to the preliminary studies undertaken only on a 100 square km area, is estimated at between 2,5 billion barrels *unrisked* and 500 million barrels *risked*.

Eni will carry out an exploration phase that will include geological and geophysical studies, prospecting and laboratory tests (the Eni laboratory in Bolgiano (Milan) is at the forefront for this type of analysis) aimed at defining the technical feasibility of the industrial development of the areas.

A second, commercial phase envisages sending the extracted tar sands to the *Commercial Demonstration Plant* of the Eni refinery in Taranto (CDP EST) to carry out a test lasting 3-4 months relating to the extraction of the tar from the sands, its storage, dilution, transformation into a commercial product and its shipment. Eni starts a new research venture in Africa. The Republic of Congo would be the first country in Africa where large amount of tar sands have been discovered and valorized.

The third phase involves marketing on an industrial scale, assessing the installation of an *Eni Slurry Technology* (EST) plant at the refinery in Pointe Noire, fuelled by gas from the M'Boundi field. The EST technological process was developed internally by Eni and it transforms the tar's heaviest components into high value economic products, mainly fuels.

The exploration phase, which will last three years and may be renewed for an additional four years, involves geological and geophysical studies, high resolution 2D seismic studies and the drilling of three wells.

The project, which is of great strategic value, will allow Eni to develop and consolidate specific skills in tar sands, taking advantage of proprietary Eni Slurry Technology (EST) for the treatment and improvement of the quality of heavy oils, opening up a new field of research on the African continent.

In the development phase, the project will benefit from operative synergies resulting from the close proximity of the M'Boundi oilfields. Gas associated with oil production in this area will be used to supply the EST plant and enrich the heavy oil. This would exploit the associated natural gas reserves and achieve the goal of reducing atmospheric emissions while profiting from credits under the Kyoto protocol.

Special attention will be devoted to environmental studies to identify the areas best suited to the recovery of tar sands and the best cultivation method in order to minimise the environmental impact and study the appropriate conservation and restoration techniques.