

## Algeria Plans Projects To Supply Gas To Europe

Located in the northwestern region of the African continent, Algeria is one of the world's top 10 energy producing countries. To support the anticipated increase in natural gas demand in Europe, Algeria has instigated several major projects. The plan is to develop several integrated gas development projects and to construct two pipeline systems to transport gas under the Mediterranean Sea to Europe. In addition, Algeria plans to increase the capacity of its two existing gas pipeline systems.

Algeria has been producing oil and gas since 1965. Natural gas production increased to 5.1 trillion cubic feet in 2005 from 4.9 Tcf in 2004. Nearly two-thirds of its gas production comes from the giant Hassi R'Mel Field, located in the center of the country. Algeria earned \$7.3 billion from natural gas sales last year, up 55 percent from 2004. The country plans to increase annual gas exports to 3.0 Tcf from 2.3 Tcf by 2010.

First Calgary plans to develop the Menzel Ledjmet East (MLE) gas and condensate discovery located in Block 405a of the Berkine Basin. Plans are to construct a \$1 billion, 300 million cubic-foot-a-day natural gas and 40,000 barrel-a-day liquids-processing facility, with production starting by late 2009. First Calgary plans to transport the gas and liquids to Gassi Touil Oil Field 140 kilometers to the west. Crude oil will be transported to the Ourhoud Field, 70 km north.

In June, BP brought on stream the In-Amenas project, which is located in the Illizi Basin. The project involves developing four wet-gas fields. Gas production should average 1 billion cubic feet a day and 60,000 bbl/d liquids. Overall project costs are \$1.4 billion. Estimated reserves are 4.2 Tcf of gas and 325 MMbbl of liquids.

In June 2004, BP commenced production from the In-Salah gas project located in the Timimoun Basin. This project involved developing seven dry-gas fields. Dry gas produced at the rate of 1 Bcf a day is transported along a 500 km pipeline to the Hassi R'Mel gas-processing hub from where it is exported to Europe. The overall project cost was \$2.7 billion.

In October 2004, BHP Billiton commenced production from the Rhourde Oued Djemaa complex, which is located in Berkine Basin Block 401. The project involved developing four gas and condensate fields and a central processing facility, which is producing 550 MMcf/d of wet gas and 70,000 bbl/d of liquids.

Sonatrach, Algeria's national oil and gas company, and the ministry of energy plan to develop the Tinrherth gas-to-liquids integrated project. The upstream segment involves developing numerous oil and gas fields with estimated reserves of 5.3 Tcf and associated liquids. The downstream segment involves constructing a GTL plant to transform the dry gas into liquids.

Repsol and partners plan to develop the Gassi Touil Integrated Project in Berkine Basin Block 237. This project involves exploring, developing, transporting (pipeline), liquefying (LNG), and marketing 7 Tcf-9 Tcf of reserves from six discoveries.

Sonatrach increased the capacity of the Pedro Duran Farrell (Maghreb-Europe) gas pipeline system by adding a compressor

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station near the Morocco border, which increased system capacity from 105 Bcf a year to 388 Bcf a year. Plans are to expand to 650 Bcf a year later this decade. The pipeline moves natural gas to Spain and Portugal through Morocco.

Sonatrach also plans to expand the Enrico Matai (TransMed) export pipeline, which transports gas from Algeria to Tunisia and Italy, from 847 Bcf to 1.130 Tcf a year by commissioning additional compressor stations.

The planned Mediterranean Gaz (MEDGAZ) pipeline, which will link Algeria's Hassi R'Mel Field hub directly to Spain through the Port of Arzew, will have an initial capacity of 282 Bcf annually. Sonatrach and its partners have plans to expand capacity to 565 Bcf a year later this decade.

Algeria and Italy have made progress implementing the Algeria-Sardinia-Italy (GALSI) gas pipeline since a technical feasibility study and a marine-hazards survey were completed. The GALSI project involves constructing two 24-inch undersea pipelines from Algeria to Italy through Sardinia and Corsica. When completed in 2008, the system will have the capacity to deliver 353 Bcf of gas a year to Italy, France, and eventually Germany.

Algeria has been revising its electricity, mining and hydrocarbons laws with the aim of attracting direct foreign investment in every sector. The country plans to hold its seventh bid round later this year by offering 15 blocks, which will provide opportunities for independents as well as major oil companies.

Independents actively working in the country include Anadarko, Amerada Hess, BHP Billiton, Burlington, Cepsa, Edison Gas, Maersk, Repsol and Talisman. Majors BP and Shell returned to Algeria last year after a 20-year absence.

While there was political and civil unrest in Algeria during the 1990s, Algerian security has improved considerably the past five years, making the country more stable and attractive to operators. □



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