

## Upstream Value Addition Focus of Algeria's Natural Gas Sector

Algeria has 2.37% of the world's proven natural gas deposits (an estimated 4.5 billion cubic meters), which ranks it 10th in the world. At its current production rate, Algeria should have gas self-sufficiency for the next 60 years. Primary gas production is 92 billion cubic meters, 60% of which is generated by the large deposits at Hassi R'mel field. Natural gas production with foreign partnerships accounts for 22% of the volume of gas produced in Algeria. Drilling activity has picked up significantly since 1991. The average number of wells drilled rose from 38 per year from 1992 to 2000 to 68 per year from 2001 to 2010, peaking at 114 wells in 2007. From 2001 to 2010, 43 partnership agreements were signed for 94 proposed projects. Exploration is an increasingly popular activity.

In 2011, Algeria was the world's 5th leading exporter of natural gas (51.5 billion m<sup>3</sup>), behind the Russian Federation, Qatar, Norway, and Canada. Total export capacity of nearly 28 Gm<sup>3</sup> annually is distributed among three gas pipelines and two liquefaction plants. A fourth gas pipeline and two additional liquefaction plants are under construction. Transporting gas via pipelines is the key element of the country's marketing policy to diversify markets and reduce costs. Sonatrach and its fully owned shipping subsidiary control liquid natural gas transport to end markets. Spain, Italy, and France are the main importers, and the expanding Asian market will be looking to Algeria as a natural gas supplier in the longer term.

## Legal Environment Spans Entire Sector Value Chain

The 1986 hydrocarbons law put the state in control of the entire exploration, exploitation, and transportation value chain. Sonatrach led local businesses in handling hydrocarbon activities. Foreign companies could engage in petroleum activities by partnering with Sonatrach in one of four ways: production sharing contract, service contract, joint venture, and joint stock company. The 2005 hydrocarbons law (Khelil law) created two new agencies to terminate Sonatrach's monopoly; liberalize upstream, midstream, and downstream activities; and simplify the legal and fiscal system for hydrocarbons. As amended by presidential order, Sonatrach must have at least 51% of shares in all exploration, exploitation, and refining contracts. The government is putting forth a new hydrocarbons bill that will shape a more favorable environment for renewing reserves. For the first time, policy will define unconventional resources and regularize cases of investors who obtain exploration permits for gas and oil but exploit unconventional energy sources (such as shale gas). Sonatrach's 2012–2016 upstream investment objective is renewal of oil and gas reserves by developing and exploring existing deposits. Downstream investment objective is to obtain higher value added export products to help meet the national industry's input needs.

## Gas Offers a Means to Develop Industry

Gas offers Algeria a major means to develop its industry by pushing the value chain toward endogenous industrialization and hence progress and international emergence. In addition to controlling the upstream and downstream value chain, local industry must develop the potential of gas to produce value addition for the rest of the economy.

## Potential for Growth Rooted in Algeria's Agro-Food Sector

In 2011, Algeria's agro-industry had more than 22,000 businesses and 145,000 jobs, accounting for nearly 30% of industrial sector employment. Agriculture accounts for 7% of the GDP. Main products are cereals, milk, canned foods, oil, mineral water, and refined sugar. Upstream, Algeria has more than 1 million farms that cover 8.5 million hectares of arable land. Although Algeria has a vibrant and growing agro-food industry, 75% of its food is imported. In 2011, upstream and downstream food imports amounted to US\$ 6.8 million—nearly 17% of total imports.

Development of the agricultural sector and agro-food industries is a major economic, political, and social challenge. Agro-food industries are disconnected from upstream agriculture and lack a place in national production due to inadequate and irregular supply of produce. Agriculture in Algeria is characterized by low use of modern technology, insufficient use of fertilizers, unskilled labor, and a cumbersome institutional environment. The size and structure of farm holdings contribute to the sector's inability to provide processing plants with produce that meets industrial standards. Private, family-owned smallholdings are not attractive to investors that might help them modernize to meet demand downstream. Blame for delays in upgrading for upstream-downstream integration has been placed on an unattractive investment climate and poor institutional coordination.

## Public Policy Addresses Food Security, Vulnerability

To improve food security, Algerian authorities introduced an agricultural and rural renewal policy to increase major consumer products and reduce dependence on exports. Nearly US\$1.2 billion of public resources will be mobilized to implement measures to encourage private investment and improve interaction between the producers and the processors. Over the 5 years of the program, agro-food industries will receive support to help them improve their contribution to the industrial GDP, comply with production plans upstream, create 500 businesses within the farming areas, upgrade 500 agro-food businesses, and build export capacity. A major impact will be development of the agricultural industry and a network of small input-producing and agricultural services enterprises. Public-private partnership will reduce vulnerabilities through involvement of many stakeholders. Also, new agricultural policy governance will emerge through the following measures:

- Increasing national production of mass consumption products such as durum wheat and milk
- Modernizing and spreading technological progress through proper irrigation, fertilization, mechanization, and use of improved seeds and breeders
- Modernizing and organizing collection and marketing networks for national production and providing agricultural inputs and services
- Setting up a regulatory system to secure and stabilize the supply of mass consumption products and protect farmer and consumer incomes
- Creating and enabling a secure environment for growth of the agro-industry

