

Perspectives for Algerian Natural Gas

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With significant natural resources and infrastructures of demonstrated reliability, Algeria exports approximately 65 billion m³ (bcm) of natural gas per year. This is more than double the overall quantity that it exported, both by pipeline and in liquefied form, some ten years ago. This growth in exports has occurred despite certain constraints, not only of a financial order but also of an organisational type, in particular with regard

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to the implementation of programmes, whether involving liquefaction or increasing production and transport capacities. Moreover, investment efforts relative to increasing natural gas export capacity have all the more merit since they were undertaken in an 'arduous' political and economic climate, to say the least. Indeed, the targeted increase in export capacity announced in the early 1990s has been surpassed. The challenge Sonatrach is now undertaking is on a higher level, involving different initiatives on all fronts to increase natural gas sales: development of natural gas fields, creation of new transport infrastructures

and the establishment of partnerships, as well as acquiring shares in downstream activities and/or gaining a position on certain European markets, namely in Italy, France, Spain and the UK.

"Our natural gas potential is constantly on the rise and this, combined with the highly promising perspective of increasing demand in Europe, ensures we will reach our goal of annual natural gas exports of between 85 and 100 bcm by 2010 - 2015," declare Sonatrach representatives.

Development Goals

This degree of development cannot be attained, however, without radical change in support measures and business approach. There are three main development goals:

Increasing the Algerian natural gas share of the closest traditional markets in Southern Europe.

This increase, in response to the quickly growing needs of the region, in particular for electricity production, is to be essentially effected by means of natural gas pipelines for the following reasons:

- A large portion (10 to 15 bcm/year) of this increase will be effected at the lowest possible cost, by the addition of compression stations on existing structures, namely, the Enrico Mattei Trans-Mediterranean Gas Pipeline in the East, and the Pere Duran Farell Maghreb-Europe Gas Pipeline in the West (MEG).
- The strengthening of market relations by means of new physical connections,¹ apart from contributing

¹ The Medgas Pipeline will directly connect Algeria and Spain, whereas the Galsi Pipeline will link Algeria and Northern Italy via Sardinia.

to greater supply security for the European consumer, would lend value to the gas as the resale cost would be lower in the case of an LNG supply chain.

- The creation of new gas pipelines to both the east and west directly serving the target markets will ensure greater diversification of export means.

Export capacity by gas pipeline would thus reach 60 bcm by the end of the present decade, in other words, it would increase by 60%.

Maintaining or increasing shares in markets already supplied by LNG and diversifying outlets insofar as possible.

Hence the construction of a liquefaction plant with a capacity of 4 million tonnes per year (mtpa) in Bethioua is envisaged as part of the project for integrally developing the Gassi Touil gas field, and the acquisition of large-capacity liquefied gas tankers is underway. This call for partnership is a first for Algeria and will involve the participation of the Spanish companies Repsol and Gas Natural in developing the gas fields, in the liquefaction process and in the marketing of LNG.

Among the markets that could be targeted for increased LNG capacity, apart from the Southern European one, are Great Britain and Northern Europe on the one hand, and the USA on the other.

The British market, which has become a strong importer and has originated great changes on the European market, as well as the Northern Europe market, can be accessed in different ways:

- For the UK market, either through the reservation of capacity at the regasification plant of Isle of Grain, to which Sonatrach already delivers LNG, or through the regasification unit at Zeebrugge in Belgium, thereafter using the Interconnector pipeline linking continental Europe with the UK and whose capacity was increased in 2006.
- For the Northern European market, apart from the Zeebrugge Terminal, the regasification terminals being planned and/or considered in the Netherlands could be used.

The United States market, whose LNG demand potential is very high, would be supplied via existing regasification plants and/or the numerous plants currently being planned.

Sonatrach's recent reservation of regasification capacity at the Montoir Terminal demonstrates the Algerian company's wish, if need be, to seize any new marketing opportunity, even on the French market. Considering the closing of the Arzew GL4Z (formerly Camel) plant and difficulties in replacing the LNG units destroyed in Skikda in January 2004, LNG export capacity will only reach approximately 30 bcm per year by the end of the present decade. Based on these

TABLE 16 Existing and Planned Capacity per Natural Gas Pipeline

Natural Gas Pipelines	Existing Capacity		Planned Capacity / Time Horizon bcm/year	Total	
	bcm/year	%		bcm/year	%
TransMed	24.80	66.1	+6.50 ^{a,b} / 2008	31.30	52.2
MEG	12.70	33.9	°	12.70	21.2
Medgaz	-	-	8.00 ^d / 2009-2010	8.00	13.3
Galsi	-	-	8.00 ^e / 2010-2011	8.00	13.3
Total	37.50	100.0	22.50	60.00	100.0

a) Additional compression stations; b) Under construction; c) Capacity could reach up to 18.0 bcm/year in the final stage. d) In the planning stage; e) In the preliminary study stage.

TABLE 17 Capacity of Liquefaction Plants

Liquefaction Plants		Capacity		
		Trains	(mtpa)	(bcm/year)
Arzew	GL4Z (1964)	1	1.1	1.5
Bethioua	GL1Z (1978)	6	7.8	10.5
	GL1K1 (1981)	6	7.8	10.5
Skikda	GL1KI (1972)	0	0	0
	GL1KII (1981)	3	3.0	4.0
Existing Capacity	Total		19.7	26.5
Bethioua (Gassi Touil Project)	GL3Z (2009)	3	4.0	5.5
	Total		23.7	32.0

premises, Algeria's overall export capacity (via gas pipelines and liquefaction) by the 2010 horizon would thus be approximately 90 bcm per year.

It goes without saying that, in view of all expected or foreseeable opportunities accompanied by different and highly variable rises in value from one market to another (Southern Europe, Northern Europe, the UK, the US market and even the Canadian and South American ones) Sonatrach, alone or in conjunction with its partners, will be able to undertake trade-offs based on price.

Sustaining this development by creating a business partnership

The envisaged development goes hand in hand with the desire to establish a business partnership, attesting to a medium to long-term 'ambition'. The aims would be to:

- Ensure a part of the income available on the final market;
- Foster long-term relations;
- Consider reciprocal flexibility in business relations;
- Reduce business risk and minimise, to a certain extent, the effects of the economic climate and the intensity of constraints;
- Be familiar with the inner workings and conditions of the market.

Approach

The approach taken by Algeria over the past few years combines two aspects: one relative to "dialogue or cooperation" and the other having to do with the business approach.

Dialogue or Cooperation

A number of forums, conferences and official and/or informal meetings have been launched and organised by the Ministry of Energy and Mines along with Sonatrach in order to attract the interest of possible partners and clarify Algeria's approach to cooperation in the sphere of energy. These meetings, on both the business and the governmental and institutional levels, have resulted in a number of partnership agreements. Another positive result is that they allow the Algerian parties to consider partners' concerns and constraints. This effort towards opening and/or establishing relations should continue.

The Business Aspect

The market seems to be reacting positively to the partnership evolution occurring with the onset of Sonatrach's share in downstream operations. Nevertheless, a number of problems remain:

- a) - The first regards the differences between Algeria, as is the case with other gas-producing countries, and the European Commission.

These differences, slightly too hyped in the media by the parties and certainly not "without an ulterior motive" on behalf of either party, are disjointed and correspond to different outlooks and different time scales. The conflict between the parties basically lies in the clause on "destination." The European Commission holds that opening up the market will foster a secure supply by multiplying actors, among other things. This opening should not be limited to only the purchasers, but should be equally effective for the suppliers. Estimates show that the European Union's dependence on gas imports will grow, rising from 40% in 1999 to 50% by 2010 and even 70% by 2020.

Moreover, within the framework of a geostrategic perspective of security of supply, the European Commission is attempting to reduce the European Union's dependence on imports from its three traditional suppliers of natural gas (i.e. Russia, Algeria and Norway) as far as possible. Hence the Commission's absolute need to seek a sort of "atomisation" of upstream processes through the participation of gas "retailers" on the market.

For the producer seeking the best value for its gas, a free destination means that it will no longer gain all the profit that the market allows and that the multiplication of "intermediary" actors will simply increase the pressure already exercised on it to lower prices. This situation could lead to "gas-gas competition" from a single source.

These are thus legitimate concerns for Algeria. It should be noted, however, that Sonatrach has adopted quite a pragmatic approach according to the market opportunities available to it.

Among these are:

- Spot LNG sales;
- An LNG marketing joint venture with Gaz de France;
- The purchase of stocks in the Spanish LNG terminal at Ferrol;
- The purchase of 30% shares in the Spanish mar-

keting company, CEPSA Gas Comercializadora, to sell gas to eligible clients, which represents a first for Algeria;

- A 30% partnership with the CEPSA company in the production of electricity, with Algerian gas supplied to four cogeneration plants in Spain with a capacity of 200 MW;
- The reservation of capacity at a number of regasification terminals in the UK, Spain and France;
- The reservation of transport capacity in the Medgaz and Galsi gas pipelines to Spain and Italy, respectively, with a view to direct marketing on these markets;
- The acquisition of share capital in GALP, Portugal;
- Gaining a position on the Italian, Spanish and French distribution markets.

"The evolution of the gas industry environment has led us to develop a dynamic strategy allowing us to continually adapt to the demands and conditions of the market," asserts the head of the section.

- b) - The other concern felt on a European-wide scale has to do with the current situation. Indeed, with Russia "showing its muscles" and having lost a great deal of its reputation for reliability, the image of Algeria as a gas supplier, in the opinion of a number of actors on the energy scene, could be more convincing.

The idea of creating a "gas OPEC" which Mr. Putin seems to be advocating and the numerous contacts between Russia and Algeria, in particular the contract² concluded several months ago between Sonatrach and Russian companies, are causing European purchasers to question Algeria's position.

It is true that Algeria may feel a certain attraction for the Russian mermaids, who would like to see it under their influence, indeed, a greater attraction than for the attitudes of many European countries, at times rather uncooperative to say the least.

However, the fact of the matter is that relations with Europe are too varied and important for Algeria to adopt a position that would hamper any form of partnership.

Partnership for Sonatrach

Algeria is today faced with the need to undertake a new direction in gas development, insofar as both quantities and marketing strategy. This new direction will have to be undertaken within a context marked by the profound changes that the world energy scene is currently experiencing. These changes are generated as much by the geopolitical, economic and technological evolution underway as by the increasingly marked concerns of:

- Large, energy-consuming countries with regard to security and diversification of supply as well as environmental protection issues; and
- A good many producing countries that are undergoing serious economic, social and/or political crises.

For Sonatrach, strengthening its positions on gas markets and searching for new niches and/or opportunities require a partnership approach adapted to the evolutions occurring on the world energy scene. Intense and diversified, this partnership would support self-sustaining, cumulative development not limited to the dimension of the natural resources income resulting from the effective price ratio and therefore variable over time. A purely financial approach via acquisition of capital in a European energy concern could be deemed uninteresting or at least insufficient. The partnership initiative would include hybrid access systems and/or value-enhancing operations and value-added industrial processing. The natural resources income would thus be accompanied by an industrial profit.

Algeria, which has major assets insofar as resources, diversity of export means and proximity of end markets, would thus see its role strengthened, in particular on the European market, whose increasing demand could not be met without calling on supplementary contributions from traditional suppliers and from new gas sources.

Sonatrach is attempting to take the steps to act directly and thoroughly on the consumer market. Everything leads to believe that the Algerian concern, with all of its strengths, is moving towards greater participation in downstream processes within the framework of a targeted, ambitious partnership.

² It is believed that this contract primarily settles the conflict regarding the Algerian debt to the former USSR.