# Driving regional energy integration

#### INTERVIEW WITH CHAKIB KHELIL

MINISTER OF ENERGY AND MINES, ALGERIA



CHAKIR KHELII. graduated in Petroleum Engineering from Texas A and M University. He went on to work for Shell and Phillips Petroleum in Oklahoma. He returned to Algiers in 1970 and was appointed head of Sonatrach's petroleum engineering department before becoming president from 1973-6. He worked at the World Bank in Washington where he specialised in the upstream problems of oil and gas worldwide and ran the Bank's Latin American energy department. He was appointed as Minister of Energy and Mines by President Bouteflika in 1999.

# What has been Algeria's response to the process of Globalisation and its economic impact? What role do you foresee for the private sector in the country?

The far-reaching changes occurring both at home and abroad have led Algeria to undertake the necessary structural changes and in particular, gradually adapt the energy sector to the conditions of a free, open and competitive economy with, as a by-product, the recovery by the State of its triple role of owner of the country's mining industry, of promoter of investment and of defender of public interests.

From this angle, the Algerian State intends, at one and the same time, to promote and accelerate the rate of a more diversified participation from private industry in the energy and mines sector in order to develop investment, acquire new technology, knowhow and access to foreign markets.

This new energy policy has led to a change in the legal and institutional framework which is part of President Bouteflika's reform programme.

## Energy producing and consuming countries are becoming increasingly inter-dependent. How are you addressing this international trend?

The sector's strategy on international cooperation is based on two fundamental considerations: the importance of this sector for the economy, and financial and technological constraints at an international level which have occurred over the past few years with the formation of integrated regional groups. The raising of environmental concerns and the globalisation of the economy have conferred upon the energy sector an important role in international relations for cooperation and stability. Oil and natural gas are today important assets in the forming of relations based on inter-dependence and converging interests between producers and consumers.

### How do you see development of the oil, gas and electricity sectors at the regional level?

On a regional level, oil, natural gas and electricity constitute important vectors for the development of an integrated Maghreb group and, later, the setting-up of a Euro-Mediterranean free-trade area, by developing energy exchanges through a network of gas pipelines and electrical cables, particularly between Europe

and the Maghreb; fostering greater industrialisation through the implanting of petrochemical and energy-based fertiliser projects, and implementing common energy efficiency and environmentally friendly programmes.

### What do you see as the key international energy issues and what role can international organisations such as OPEC play in addressing these?

At an international level, Algeria is proposing ways of cooperating with international partners and responding to their concerns about the safety of their energy supplies and the guaranteeing of their economic and industrial interests. Negotiations for Algeria's accession to the WTO are at an advanced stage.

Within OPEC we continue to work to achieve the continuation and expansion of dialogue between producers and consumers so that agreement can be reached on the need for oil market stability.

We are also striving to promote the fair consideration of environmental concerns on an international level, guaranteeing the stability of their revenues for oil and natural gas producing countries in order that their development efforts can continue.

We are working within the same framework to strengthen cooperation between Arab countries, in the context of AOPEC. Algeria is also a founding member of the Association of African Oil-Producing Countries (AOPC) whose objective is to promote cooperation and exchanges with other international and regional organisations. The headquarters of the Energy Commission (AFREC), established in 2001, are also in Algeria. Its main mission is to promote African cooperation in the energy field and to integrate African markets.

Our relations with the Organisation of Latin American Energy-Producing Countries (OLADE) will also expand with Algeria recently becoming a member. Algeria's membership will enable us to develop a sustained energy-based bilateral and regional relationship with Latin American countries.

Algeria hosted the first AFROLAC conference in 2004 which examined the possibilities of cooperation between Africa, Latin America and the Caribbean, which form part of the sustainable economic and social development process and of the drive to reduce poverty.

### The issue of sustainable development and the promotion of renewable energy is now top of the global agenda. What is your approach to this issue?

In keeping with the recommendations of the World Summit for Sustainable Development held in Johannesburg in 2002, States must undertake reforms in their energy sectors and enhance energy efficiency with an increased input of renewable energy. The challenge is, of course, to reconcile economic development requirements with the preservation of our planet from pollution, while ensuring an optimal use of fossil fuels.

The development of fossil energy has been a technological breakthrough and the basis of industrial development. Today, fossil energies are the primary source of global energy consumption. 5 per cent of power generation is principally fossil-based (whether it be oil, gas or coal). Natural gas input in power generation will increase over time, since it is a clean and readily available source of energy, more so than oil. For example, in Algeria, power generation is mainly gas-based. There is no doubt that these energies won't disappear in the near term but the era of abundant and cheap energy will not last long. We will therefore have to consider alternative sources of energy. This is the reason why the quest for unlimited and clean renewable energies should be the priority.

Promoting renewable energy is now one of the major pillars of our energy and environmental policy; we are aware of the beneficial effects of these energies on the economic development of our country. Every single renewable energy chain has been closely studied, taking into account its development potential, the type of energy needs and our own resources – hydrocarbons, solar and wind energy.

Since Algeria is mainly a semi-arid land, its limited water reserves have been exploited during the last few decades, and our installed hydroelectric capacity is around 300 MW. However, our solar power capacity is one of the largest on earth. More than 2,000,000 km2 receive an annual sunshine exposure equivalent to 2500 kilowatt-hours (kWh) per square metre. Thanks to solar energy, we are able to complete our programme for rural electrification, and 95 per cent of the country is now covered by the domestic grid.

Remote places, far from the power network can only benefit from electricity supplied by an adequate use of renewable energy. There are several ongoing electrification projects in rural areas using solar energy as a supplement to the classical power network. Photovoltaic power is also successfully used for water pumping. Another project that will supply photovoltaic power is being established for the benefit of our remote southern populations.

We realise that a strong take-up of renewable

energies can only be achieved through progressive power generation programmes and connection to the domestic distribution network.

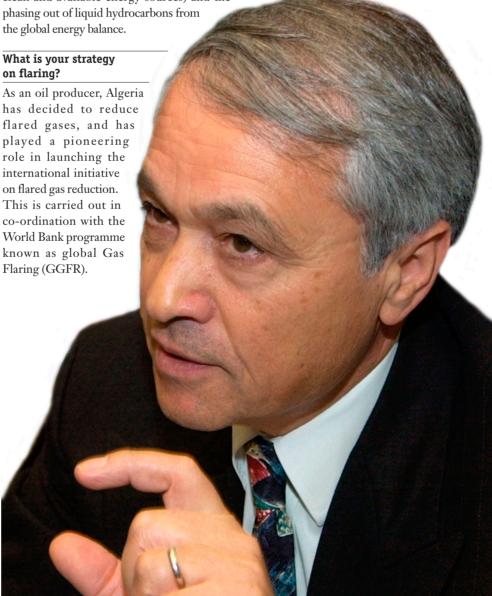
The underlying objectives are not only justice and social cohesion but to introduce renewable electricity in the national grid, and eventually beyond our borders, through international interconnection.

## How are environmental and sustainable development programmes being integrated within Algerian energy policy?

Algerian energy policy has always focused on the important interconnection between energy management, the environment and sustainable development. It will be meaningless to tap new sources of energy if the available ones are not efficiently used.

Since the 1980s, public authorities have adopted a framework for energy demand based on the following principles and objectives: the promotion and development of effective technologies to enhance energy yields, the extension of natural gas use as well as that of LPG (both clean and available energy sources) and the

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It is also worth noting that all our gas development projects are equipped with CO2 extractors in order to impound CO2 geologically. This is the case at the In Salah project, developed with BP.

#### What arrangements are being made to maintain the hydrocarbon export infrastructure?

The government will adapt and modernise the port infrastructures intended for the export of oil and gas, in order to support the development of production.

We will likewise pursue a programme of connecting rural populations to the distribution networks of gas and electricity. The pricing system for electricity and gas will be adapted to take into account the condition of underprivileged areas and citizens. It will also take on board the needs for growth and investment leading to sustainable economic added value.

Furthermore, a policy covering the profit margins on oil production will be put in place in order to promote national and foreign investment – either direct or in partnership – in the distribution activities, and to favour the wider use of LPG and lead-free petrol for vehicles. Along with the opening up of the distribution sector, the government will set up the appropriate institutions for economic regulation, the control of industrial health and safety, and the protection of the environment.

Finally, the government will pursue its efforts to protect and maintain the infrastructure of the hydrocarbon industry in order to guarantee the safety of workers and the environment.

#### How would you characterise the country's current hydrocarbon exploration prospects?

The hydrocarbons domain is very wide, covering an area of 1.5 million km2 representing some 60 per cent of our national territory. It is a very rich and diversified field, both of the Mesozoic/Paleozoic and Cenozoic eras, containing oil potential confirmed by Sonatrach, together with foreign partners.

Except for some basins where significant hydrocarbon deposits have been discovered, this domain remains largely unexplored, with wide regions having experienced only preliminary work. Even the basins considered as known are currently subject to studies and analysis for the new potential programmes.

Sonatrach is currently running promotion campaigns at the international level and organising data rooms for foreign oil companies wishing to invest in Algeria's exploration sector. A number of blocks are periodically offered to interested companies. The areas where Sonatrach is currently operating alone are also open to partnership. We welcome interest from international companies.

### What investment opportunities are offered in the hydrocarbon sector?

We welcome approaches for the following areas: the development and exploitation of already discovered fields; the improvement of the existing operating fields recovery rate; the development and exploitation of wet gas fields; the exploitation of marginal fields and partnerships for the development and production of the new gas reserves.

The Algerian government will pursue its efforts to protect and maintain the infrastructure of the hydrocarbon industry



