



MEETING FUTURE DEMAND: ALGERIA'S CONTRIBUTION

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The 13th Ministerial meeting of the International Energy Forum is taking place in “The International Year of Sustainable Energy for All”. This International Year, decided by the United Nations General Assembly, reflects a universal aspiration for access to modern, affordable and sustainable energy services for all, as well as the desire of all countries, including mine, to achieve the Millennium Development Goals.

The various forecasts for world energy demand by the year 2035, based on a “business as usual” scenario, show consensus on a considerable increase of more than 50 per cent, due to the dynamism of the non-industrialised countries and their needs in terms of development, mobility, urbanisation and the general improvement in the living standards of an increasing population.

It is also acknowledged that fossil energies will remain predominant in the total energy balance with an overall share of more than 80 per cent. Gas, as a fossil energy with low carbon content, will probably witness the highest growth rate. The global demand for liquids, which include oil, biofuels and other products, is likely to reach about 103 million barrels a day (mb/d) by the year 2030, compared to 87 mb/d in 2010.

Power generation, the main sector through which the energy mix can be widely diversified, accounts for more than 57 per cent of the growth in future demand for primary energy.

“Energy for all” should imply additional demand from the more than one billion people who live mainly in the countries of the South, and are today deprived from modern energy services. It should also mean developing all forms of energies, including renewable energies, which are available and economically viable.

Worldwide energy resources are abundant. Apart from the important resources of OPEC countries, estimates of economically viable energy reserves, notably oil and gas, are all the time revised upward, thanks to the intensification of exploration efforts and to technological progress. The North Sea, which was considered as a mature zone, has surprised us with a re-evaluation to more than 3 billion barrels of oil reserves for a single field in Norway. Similar findings should not be ruled out in other regions.

By the year 2030, supply increase will come mainly from OPEC. Additional supply from non-OPEC countries will certainly come from biofuels, tar sands, the deep offshore and shale oils.

Overall, offshore potential is important. Moreover, stimulation technology has succeeded in turning non-

conventional hydrocarbons resources into a substantial share in supply, and this is expected to increase further.

However, resource availability and consequently supply should in no case curb the efforts undertaken by several countries to rein in demand through energy efficiency. This remains, according to experts who met at the recent IEF Symposium on this topic and whose opinion I share, “the quickest, the cheapest and the cleanest solution,” to contribute to meeting the challenge of future increases in demand. It is also imperative to exploit and use energy resources in a way that would ensure the preservation of the environment.

The development of the energy resources identified above requires the mobilisation of considerable investments, which can be achieved only in a favourable climate characterised by an effective and predictable long-term demand.

Algeria, one the most important African countries in terms of hydrocarbon reserves, produces the equivalent of 4 mb/d, 60 per cent of which contribute to the supply of the international market.

As a pioneer in the natural gas liquefaction industry, Algeria ranks fifth among natural gas exporters. The country has an important domestic pipeline transport network estimated at more than 18,000 km, which links production fields to processing and liquefaction units and/or loading ports. Export capacities via gas pipeline represent a total of 52 billion cubic metres a year (bcm/yr), with the first deliveries of Medgas that took place last year, and other projects such as the Galsi project which will enhance these capacities.

Another important project, the Trans-Sahara Gas Pipeline (TSGP), which would link Nigeria to the Algerian coast via Niger, would allow the supply of gas to Europe. This role will be enhanced by two liquefaction units under construction with a combined capacity of 12.5 bcm/yr, bringing the total LNG capacity to nearly 37 bcm/yr in the medium term.

The country's economic development creates strong demand for energy, in view of the quasi-total electrification of the country and the gas penetration rate which has reached nearly 50 per cent, in addition to the increasing needs of the industrial and transport sectors. The domestic economic and social imperatives, the preservation of the role conferred on the hydrocarbon sector in ensuring a stable income to the country and its contribution to the overall effort to preserve the environment, require an adjustment of our energy policy.

This implies in the first place an adaptation of our energy production policy. Indeed Algeria has 1.6 million square kilometres of largely under-explored sedimentary basins, including 100,000 square kilometres of unexplored offshore subsurface.

The Algerian subsoil bears non-conventional gas resources associated with clays and source rocks of the Silurian and the Frasnian periods that contain good organic wealth. Algeria has realised the importance of its national non-conventional gas resources and has launched several initiatives aimed at evaluating its potential, described by experts as being important. Indeed preliminary evaluation of the non-conventional gas potential show that it is at least comparable to the most important deposits of the US.

This evaluation work continues in association with companies which possess the necessary expertise and are willing to participate in this new exploration experience. The adaptation of the legal and fiscal framework to economic and technological conditions for the development of this type of reserves is ongoing.

Likewise, exploration efforts will be enhanced as part of an investment plan of about US\$70 bn over the next five years which will be allocated to hydrocarbons, of which two thirds will be devoted to oil and gas upstream.

But beyond hydrocarbons, the country enjoys one of the highest sunshine irradiation rates in the world, estimated at about 2,700 kWh/m²/year. It has therefore decided to exploit this potential and an ambitious programme was adopted in this direction by the government for the introduction of renewable energies and particularly solar. The aim is to install power production capacity based on renewable energies of 22,000 MW between 2011 and 2030, including 12,000 MW for the supply of the domestic market and 10,000 MW for export.

Once this programme is completed, 40 per cent of electricity will be generated from renewable energies. The first hybrid solar/gas power station, with a capacity of 150 MW, was commissioned in 2011 in Hassi R'mel.

Concurrently with this programme, energy efficiency is also to contribute to reining in consumption growth of exhaustible hydrocarbon resources with the reduction of the harmful effects on the environment. A series of measures and actions, which have

been already initiated or under implementation, will translate into significant energy savings.

I would like to point out that all the ongoing actions, planned or under study, which are designed in the first place to enhance the national energy base to meet the country's needs, constitute also a contribution by Algeria to securing the supply of the world economy.

However, it seems important to me here to underline that energy security implies also securing future demand with an adequate return on investments. The need for a favourable environment for the realisation of the necessary huge investments requires also market stability with rewarding price levels in the interest of all.

Today, dialogue between producers and consumers is therefore more necessary than ever to increase energy market transparency and stability. The various players must coordinate their efforts to reduce price volatility, particularly by enhancing energy data transparency and reliability and providing the necessary conditions likely to encourage investments.

Algeria, which is celebrating the 50th anniversary of its independence this year, has embarked on a new phase of adaptation of its energy policy based on clear objectives, while taking into account the development of the international energy environment. It will pursue its economic and social development programme, while maintaining its historic role as a reliable energy supplier. ■



ALGERIA ENJOYS ONE OF THE HIGHEST SUNSHINE IRRADIATION RATES IN THE WORLD