

ENERGY POLICY OF GREECE

Developments in the Energy Sector 2004-2007

by Nikos Stefanou

General Secretary, Ministry of Development



There is no doubt that, over the last years, energy has been the center of global attention. Achieving energy security and diversification combined with fighting climate change, has become the number one issue on the agenda of all developed countries in the world. In this respect, Greece, situated at the southeast part of Europe, has started to play and will continue to play quite a significant role as an energy gateway between the East and the West.

Since March 2004, Greece's new energy policy has been based on a twofold strategy.

The first part involves the liberalisation of Greece's internal energy market, aimed at developing the energy sector and attracting large-scale investments.

The second part of our strategy has to do with enhancing our country's position on the international energy map, transforming Greece into an energy hub between the East and the West.

Having this in mind, special focus has been given to the liberalisation of the internal electricity and natural gas markets, the further use of Renewable Energy Sources, the introduction of biofuels in our energy mix and the implementation of energy saving and energy efficiency measures.

At the same time, priority has been given to the development of a strong external energy policy, basically, through the creation of new and the upgrading of existing energy interconnections with our neighbour countries in the electricity, natural gas and oil sectors.

In this framework, during the last 3 years, Greece's energy market has undergone a radical reform, aiming to open up the internal electricity and natural gas markets for new players.

For this purpose, law 3426/2005 for the acceleration of the electricity market liberalisation process and law 3428/2005 for the liberalisation of the natural gas market were passed in Parliament, in December 2005. The new legislative framework for

energy fully incorporates the EU Directives 2003/54 and 2003/55 concerning the common rules for the internal markets of EU Member-States, in electricity and in gas, respectively.

ELECTRICITY

Under the new electricity law 3426/2005:

- The electricity market becomes fully liberalized in July 2007, when all costumers, including households, will be able to choose their supplier.
- Generators, besides PPC, on obtaining the necessary permits, may construct and run new power plants on the Non-Interconnected Islands.
- New authorities are given to the Regulatory Authority for Energy for more effective market monitoring.

In addition, in May 2005, the new Transmission System and Power Exchange Code was issued to ensure the effective operation of the liberalised electricity market. The new Code sets the basic rules for third party access to the electricity transmission system and for the load distribution and establishes the new wholesale electricity market and capacity assurance market.

In addition, two new independent power stations have been commissioned, which today produce and sell electricity in the wholesale market:

- A 147MW gas-fired plant in Viotia, a project with a total investment of 80 million €.





- A 390MW CCGT plant, in Thessaloniki.

To introduce new capacity by independent generators, the Hellenic Transmission System Operator (HTSO) has launched a tender for a 400MW capacity auction, from which PPC is excluded. The winning bidders will benefit from an income guarantee from HTSO, to cover their fixed cost, where they fail to obtain at least 70% of those costs.

NATURAL GAS

Under the new law 3428/2005, the natural gas market becomes fully liberalised in November 2009, when all consumers, including households, will be free to choose their supplier.

Moreover, the new law lays the foundations for the creation of a

transparent natural gas market in Greece, setting the necessary framework for the unbundling of the transmission, distribution and supply activities, third party access and the construction of direct lines by independent suppliers.

In March 2006 the natural gas Transmission Tariffs were set by a Ministerial Decree, while the Transmission Code will be issued in 2007.

In 2006, total final consumption reached 3.1 billion cubic meters (bcm) and future projections show an increase at the levels of 6 bcm for the year 2010 and 7,5 bcm for 2015.

Today, the Public Gas Corporation (DEPA S.A.) is the sole supplier of natural gas in the Greek market. However, the new regulatory and legislative framework combined with:

- The operation of the new natural gas interconnection pipeline with Turkey, through which the Greek market will be supplied with an additional 3,5 bcm per year.
- The construction of, at least, 3 new power plants, by 2010.
- The establishment of the 3 new Distribution Companies,

lay the path for the entrance of new suppliers in the Greek natural gas market.

RENEWABLE ENERGY SOURCES

Moreover, in June 2006, law 3468, for the promotion of electricity generated by Renewable Energy Sources (RES) was passed in Parliament, aiming to establish a clear and transparent process for the issuance of licenses and further promote investments in the area of RES.

Within this new framework:

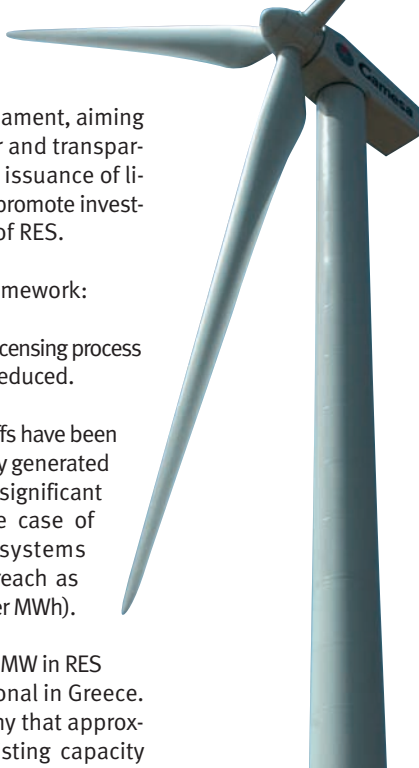
- Red-tape in the licensing process is significantly reduced.
- New feed-in tariffs have been set for electricity generated by RES, with a significant increase in the case of photovoltaic systems (where prices reach as high as 500€ per MWh).

Today, a total of 750MW in RES systems is operational in Greece. It is also noteworthy that approximately half of existing capacity

was installed and connected to the system in the period from March 2004 to September 2006, showing a significant increase of 55% of operational RES systems in Greece. Moreover, the Government's plans involve reaching a total installed capacity of 3,000MW by 2010, thus, meeting the country's E.U. obligation amounting to 20.1% of total gross electricity consumption originating from RES.

BIOFUELS

Regarding the biofuels market in Greece, in November 2005, law 3423/2005 was passed in parliament,





for the introduction of biofuels and the transposition of the EU directive 2003/30/EC into national legislation.

Under law 3423/2005:

- A proportion of 5,75% of biofuels of the total diesel and petrol quantities for transport purposes will be placed in the market by the 31st of December 2010.
- The legislative framework for the production and distribution of biofuels in the Greek market was set.

In 2006, total supply of biodiesel in

the Greek market reached 90,000 metric tons (MT) of biodiesel, while for 2007, total supply is expected to rise to 115,000 MT.

INVESTMENTS

The necessary foundations have been laid for the realization of large investment projects in the energy sector in Greece.

- The construction of new power plants by independent generators.
- The completion of PGC S.A. current investment plan.



- The construction of new large-scale interconnection projects in the oil, natural gas and electricity sectors

represent a potential investment reserve of 4.5 billion euros, for investments in the energy sector up to 2010.

Over the last years, Greece has undertaken a number of initiatives of major importance regarding its external energy policy. The country's participation in the construction of electricity, natural gas and oil transmission networks, con-

tributes to the security of supply of the wider Balkan region, as well as of Europe as a whole.

At the same time, Greece has enhanced its energy relations with its neighbour countries, the countries of the Mediterranean Sea, the Black Sea and the Middle East. In particular,

First: The signing of the Burgas-Alexandroupolis Intergovernmental Agreement, in Athens, on March 15, 2007.

14 years after the project's first con-



ception, an Agreement was signed by Russia, Bulgaria and Greece for cooperation in the construction and operation of the Burgas-Alexandroupolis oil pipeline, in which Greek companies will participate by 23.5% and the Greek State by 1%.

Russian Minister of Industry and Energy Victor Khristenko, Bulgarian Minister of Regional Development and Public Works Assen Gagauzov and Greek Minister of Development Dimitris Sioufas, signed the Agreement, in Athens, on March 15 2007, in the presence of Russian President Vladimir Putin, Bulgarian Prime Minister Sergei Stanisev and Greek Prime Minister Kostas Karamanlis.

The construction and operation of the oil pipeline will serve as a supplementary route ensuring the flow of increasing amounts of oil to the international markets, helping

to relieve the congestion of the Bosphorus Strait.

Through the construction of the 279 km long pipeline, from Burgas, in Bulgaria, to Alexandroupolis, in Greece, and with initial annual throughput of 35 million tons, to be later extended to 50 million tons of oil per annum, Greece obtains a position in the international oil networks.

Second: The construction of the Greek-Turkish natural gas interconnector, which began in July 2005 and will be commissioned in July 2007, stretching from Komitini in Greece to Karacabey in Turkey with a total length of 295 kilometers.

The new pipeline will provide Greece with a third supplier of natural gas and an additional quantity of 3,5 bcm coming from Turkey, thus, diversifying its existing supply of natural gas from

Russia, via Bulgaria, and liquefied natural gas from Algeria.

Third: The construction of the Greece – Italy undersea pipeline, which will essentially, constitute the extension of the Greece – Turkey pipeline.

The undersea pipeline is designed to carry 8 billion cubic metres per year and its total budget is 300 million euros. It will extend from western Greece, to the city of Otranto in Italy and will have total a total length of 212 km. The project is one of the five priorities axes of the Trans-European Networks.

In November of 2005, Minister of Development Dimitris Sioufas and Minister of Productive Activities of Italy Claudio Scajola signed an Intergovernmental Agreement for the promotion of the construction of the pipeline.

Moreover, on January 31 2007, a Protocol of Intent was signed by Mr. Sioufas and the Italian Minister of Economic Development Pierluigi Bersani, by which the necessary prerequisites have been put in place for the beginning of the pipeline's construction.

Once the two projects are completed, the Greek-Turkish and the Greek-Italian interconnectors, Greece will be transformed into an energy hub, through which significant quantities of natural gas will be transported from the Caspian region to the high-consumption markets of Western Europe.

Fourth: Greece's important role in the establishment of the Energy Community, the Treaty for which

was signed in Athens, on October 25, 2005 and official operation began in July 2006.

The operation of the Energy Community of Southeast Europe involves the creation of a unified energy market in the greater Balkan region, through the establishment of common market rules and regulation, later to be integrated with the EU's energy market.

And this is rather important for Greece, as it has the potential to constitute a point of reference in the wider area. Our country and, particularly, the area of Northern Greece can become the basis of large international companies, seeking investment opportunities in Southeast Europe.

According to the World Bank, with the establishment of the Energy Community of Southeast Europe, approximately 30 billion euros will be invested, by 2020, in the electricity and natural gas sectors, alone.

Moreover, the Public Power Corporation and the Public Gas Corporation, as well as large private Greek energy companies have the opportunity to develop their business initiatives in the greater area.

Fifth: The upgrading of existing and the development of new electricity interconnections with our neighbour countries.

Aiming to further enhance electricity cross-border exchange in Greece's northern interconnections and taking into account the electricity markets integration in the wider Balkan region, a number of new electricity interconnection

projects have been scheduled:

- Reinforcement of the electricity interconnection with FYROM, by upgrading the existing 150kV line from Melitis to Bitola to 400kV.
- New interconnection line with Turkey, through the construction of a 400kV line of total transmission capacity of 400MW, which will be commissioned in 2007.
- Reinforcement of the existing interconnection line with Bulgaria, through the construction of a new 400kV line from Filipi to Maritsa, with a total capacity of 300MW.

Sixth: The signing of a Memorandum of Cooperation in the natural gas and oil sectors with Egypt and of an Intergovernmental Agreement with Albania for further cooperation in the field of energy, as well the promotion of our relations with the countries of the Arabic Peninsula, particularly with Saudi Arabia and Qatar, today, on of the largest exporters of liquified natural gas in the world.

Seventh: The extension of the supply contracts with Russia and Algeria, from which Greece, today, covers all of its needs in natural gas.

During a recent meeting, in Athens, between Minister Sioufas and Gazprom's CEO Alexei Miller it was decided that the deal will be finalised by the end of 2007, for the extension of the existing supply contract between Gazprom and the Public Gas Corporation (DEPA), up to the year 2040.

To conclude, there is no doubt that, today, we face an historical challenge.

By focusing on the energy sector, Greece is capable of becoming the center for the attraction for large-scale investments in the wider area, thus, contributing to the country's further economic growth and regional development, the strengthening of the energy infrastructure in the electricity, natural gas and oil sectors and, notwithstanding, the creation of thousands of new jobs and the provision of new choices to all consumers, both in Greece and in the wider region of Southeast Europe.

USEFUL LINKS

Ministry of Development
www.ypan.gr/fysikoi_poroi/index_eng.htm