
THE ENERGY
REGULATION
AND MARKETS
REVIEW

EDITOR
DAVID L SCHWARTZ

LAW BUSINESS RESEARCH

THE ENERGY REGULATION AND MARKETS REVIEW

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This article was first published in *The Energy Regulation and Markets Review*,
1st edition (published in June 2012 – editor David L Schwartz).

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Published in the United Kingdom
by Law Business Research Ltd, London
87 Lancaster Road, London, W11 1QQ, UK
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ISBN 978-1-907606-35-9

Printed in Great Britain by
Encompass Print Solutions, Derbyshire
Tel: 0844 2480 112

ACKNOWLEDGEMENTS

AFRIDI & ANGELL

ANDERSON MÕRI & TOMOTSUNE

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EDITOR'S PREFACE

Safe and reliable delivery of electricity and natural gas has been the hallmark of energy policy and regulation in the industrialised world for the past 75 years. More recently, regulators, policymakers and the industry began to focus their attention on ways to improve economic efficiency, increase productivity and reduce costs through a seemingly endless series of reforms.

In some countries, utilities were encouraged to enhance transmission and interconnection facilities with neighbouring systems in order to pool energy resources. More recently, utilities have been encouraged to participate in regional organisations to buy and sell power, and to administer transmission, dispatch and scheduling of a variety of energy products. Certain countries have encouraged utility efficiency through a variety of performance-based incentives.

Policymakers have tried to reduce the barriers to entry by requiring non-discriminatory treatment among transmission users, and prohibiting affiliate abuse. Utilities were encouraged to unbundle certain utility services; in some cases, regulators required the divestiture of generation or transmission facilities. Utilities have even been encouraged to provide retail wheeling services to facilitate competition for delivery service customers.

Many markets have developed competitive bid-based electricity auctions to set energy and capacity prices, which often take into consideration the cost of transmission congestion. These markets tend to be administered by independent or governmental entities that do not have a market position bias. Clearing prices set in these markets are intended to send price signals to maximise short-term efficiency (scheduling, dispatching and selling energy), as well as long-term efficiency (building new or retiring old generation and transmission facilities).

In certain countries, lawmakers and policymakers have encouraged developers to build and finance new renewable resources and to develop more effective means of conserving energy, through a variety of 'carrots' and 'sticks'. These measures have included subsidies such as feed-in tariffs and renewable energy credits, as well as utility

requirements through renewable portfolio standards. In certain competitive markets, conserving electricity has been converted into a demand-side product ('negawatts') with near or equal value to supply-side generation (megawatts). New 'smartgrid' technologies have been created to increase the efficiency of transmission, generation, distribution and individual consumers' energy use.

Now, however, the myriad of efficiency mechanisms faces new and unprecedented challenges. Transmission and distribution systems are ageing and desperately need upgrading. Severe new environmental requirements are leading to mass retirements of baseload coal-generation resources. Fuel prices are volatile, adding long-term uncertainty to energy prices. Spikes in the price of raw materials are making the development of new infrastructure all the more expensive. Cyber-security threats are exposing the vulnerabilities of our energy networks. And the global economy continues to threaten our ability to obtain the necessary credit to build and finance energy infrastructure.

This is the sobering backdrop for this inaugural edition of *The Energy Regulation and Markets Review*. I would like to thank all of the authors for their thoughtful consideration of these difficult challenges. As can be seen in these chapters, we have much to consider and resolve before we can achieve the kinds of energy security and efficiency that we have been pursuing.

David L Schwartz

Latham & Watkins LLP

Washington, DC

June 2012

Chapter 9

GREECE

Euripides Ioannou and Dimitra Rachouti¹

I OVERVIEW

Greece's energy sector is viewed as an attractive prospect for both domestic and foreign investment, a factor that significantly helps boost the Greek economy's competitiveness, particularly in the current market conditions. For this reason, the development of the energy market is a fundamental principle of Greece's development model, which aims to create wealth by maximising domestic potential. The key policies in this regard are, first, the protection and effective management of natural resources and the diversification of the domestic energy mix by means of an accelerated transition to renewable energy sources ('RES') and, second, the improvement of energy conservation and reduction of energy consumption.

The liberalisation of the Greek energy market began in 1999 for the electricity sector and in 2005 for the natural gas sector. In 2006, a bespoke legal framework was implemented with a view to promoting the production of electricity from RES in order to meet the national targets set by EU common policies for the reduction of greenhouse gas emissions. This framework was extensively reformed in 2010 in order to further simplify the relevant licensing process. Finally, in 2011, applicable Greek laws were harmonised to align with the provisions of the EU's 3rd Energy Package.

Currently, the main challenge encountered within the Greek energy market is the significant use of fossil fuels for the production of electricity and, more generally, for energy consumption. The use of lignite has been a strategic choice, despite its environmental impact and consequences, due to the fact that it is a low-cost, abundant source of fuel that is readily available within the country. Furthermore, the national energy balance is dominated by imported hydrocarbons (mainly oil products and to a lesser extent natural gas).

¹ Euripides Ioannou is a partner and Dimitra Rachouti is an associate at PotamitisVekris Law Partnership.

In order to increase the competitiveness of the energy market and reduce the effects of climate change, Greece's main focus until 2020 is the achievement of the binding national target of 20 per cent participation of RES in gross final energy consumption, and, more specifically, 40 per cent participation of RES in electricity production, 20 per cent in heating and cooling and 10 per cent in transport. An indicative target within the energy conservation sector has also been proposed for the period leading up to 31 December 2019 in relation to the energy consumption levels of new buildings through the utilisation of RES systems, co-generation of electricity and heat, and district heating.

This chapter is not intended to provide a detailed analysis of the Greek energy market. Its aim is to provide a general overview of the current policies applicable in, and the conditions of, the Greek energy market (focusing primarily on the electricity and natural gas sectors), as well as of the trends and potential developments in the market.

II REGULATION

i The regulators

The Greek energy market is governed by a regulatory framework supervised by the Ministry of Environment, Energy and Climate Change ('YPEKA') and the Regulatory Authority for Energy ('RAE').

YPEKA's primary responsibilities are the implementation of local energy policy and the issuance of secondary legislation.

Following the reform of applicable energy legislation in 2011, RAE's role was greatly enhanced, making it the main decision-making authority regarding the regulation of the Greek energy market. In addition, RAE also issues non-binding guidelines and recommendations. In summary, RAE's key responsibilities are:

- a* the monitoring the availability of energy supply;
- b* the issuance of licences relating to electricity and natural gas activities;
- c* the issuance of codes of management and the determination of the tariffs for access to the transmission and distribution systems of electricity and natural gas, as well as the tariffs for the provision of public utilities services to consumers;
- d* the supervision of fair competition;
- e* the settlement of disputes within the energy sector; and
- f* the imposition of penalties in the event of breaches of applicable rules and regulations.

With respect to the oil market, RAE's regulatory powers include the monitoring of the applicable tariffs, marketing of oil products in Greece, access by third parties to oil security reserves, opining on the issuance of codes relating to the licensing of oil products and oil security reserves, and, if, necessary the imposition of a price ceiling on oil products.

RAE is a independent legal entity subject to parliamentary and judicial control. It should be noted that due to the current domestic market conditions RAE is currently understaffed, which, in some cases, adversely affects the performance of its functions.

ii Regulated activities

Electricity

Within the electricity sector, a licence is required for each of the production, supply and trading of electricity.

With regard to the production of electricity, the licensing process has three phases. First, RAE issues a generation licence after assessing the technical and financial feasibility of the project. Second, following the determination and agreement of the technical and financial terms of interconnection and the completion of the environmental approval process, the producer receives an installation licence, which allows the construction of the project's facilities. Finally, once the project's commissioning is complete, an operation licence is issued.

Although this structure is similar for both RES producers and producers using conventional sources, the licensing process for RES producers is faster, with certain stages running in parallel and simplified procedures applicable.

It should be noted that the issuance of licences for offshore wind parks has been suspended since 25 November 2011. At present, RAE will only evaluate applications submitted prior to such date.

The supply of electricity is divided in two distinct licensed activities: a cross-border electricity trading licence, which requires share capital of at least €60,000 and a licence for the supply of electricity permitting both cross-border transactions and retail sale of electricity to end-users, which requires a share capital of at least €600,000.

Natural gas

Within Greece's gas sector, licences are required in order to own and manage an independent natural gas transmission system, as well as for the distribution of natural gas. Such licences are issued upon application by RAE. In certain situations (e.g., if a transmission system serves the public interest, a distribution grid is subsidised by domestic or EU sources, or multiple applications are submitted for a particular area), a tender process may be concluded.

A licence issued by RAE is also required for the supply of natural gas.

Currently, the key supplier of natural gas in Greece is the government-owned Public Gas Corporation SA ('DEPA'), excluding the suppliers of the regions of Attiki, Thessaloniki and Thessalia, who are independent companies, each of which DEPA owns 51 per cent. A similar regime will be introduced in the near future in the regions of Eastern Macedonia and Thrace, Central Macedonia and Sterea Ellada and Evia, in which three new companies are in the process of being incorporated.

Hydrocarbons

Upstream

The Greek state has a statutory exclusive right to the exploration and exploitation of hydrocarbons in regions where it possesses sovereign rights. The recently established company Hellenic Hydrocarbon Resources Management SA ('HHRM') has been appointed to manage such rights of the Greek state. In particular, HHRM may assign the exploration right to third parties following a relevant invitation for the submission of applications, and subject to the approval of YPEKA. The same process applies to the

assignment of seismic and other geological exploration rights. The contractor performs the seismic activities at its own expense and has the right to sell the results to third parties.

A different assignment process applies to exploitation rights, which are assigned on the basis of either lease agreements or a distribution agreements relating the hydrocarbons produced entered into between HHRM and the respective concessionaires. Such agreements are concluded following a tender procedure or, for areas not included in the tender, the submission of applications, or through an open-door invitation process for areas generally available or for which similar procedures were previously unsuccessful. The agreements must be approved by YPEKA, otherwise they are null and void. The concessionaire takes on the financial and business risk and in the event of a positive outcome it has the exclusive right to produce and sell the hydrocarbons. The Greek state has the right to participate in the above agreements through a joint venture with the concessionaire.

Recently, the Greek state launched an open-door tender process for the exploration and exploitation of three areas in Patras Gulf, in northern Greece: Epirus and Ioannina, and at West Katakolo pursuant to lease agreements. The deadline for the submission of offers is 2 July 2012. Furthermore, 2 March 2012 was the deadline for the submission of applications to participate in non-exclusive seismic surveys in western and southern Greece. The results of the surveys are expected to be released in September 2012.

Downstream

The following activities are subject to the licensing regime:

- a* oil refining;
- b* marketing of bio fuels;
- c* trade of oil products, tax-free shipping and air fuels, liquid gas and asphalt;
- d* transmission of oil through pipelines;
- e* retail sale of liquid fuels, heating oil and bottled liquid fuels; and
- f* bottling of liquid gas.

YPEKA issues the licences under (a) to (d), while licences under (e) to (f) are issued by competent local authorities.

A special regime applies for the marketing of biodiesel used in transports, pursuant to an annual programme maintained by YPEKA, which determines the exact quantities to be marketed for the next year (132,000 kilolitres for 2012), the allocation of such quantities to specific companies, and the required percentage at which biodiesel must be blended with diesel (6.5 per cent).

iii Ownership and market access restrictions

Greek law imposes a number of restrictions with a view to protecting its interests, the interests of national security and the availability of supply. Approval processes apply under Greek law in the event of transfers of control and assignments. Such processes vary among the energy sectors. The usual time frame for such approval processes is approximately three to four months, however, there may be instances in which such deadlines may be exceeded.

Electricity

The government-owned Public Power Corporation SA ('PPC') is the exclusive owner of the national electricity distribution grid of and the sole supplier of electricity to the consumers on the non-interconnected islands.

Small RES stations, which are not subject to the usual licensing process, as well as licences required by photovoltaic ('PV') stations (irrespective of capacity), may not be transferred prior to the commencement of their commercial operation, unless the company acquiring the licence is a wholly owned subsidiary of the company transferring the licence.

Natural gas

In the event that a person (individual or legal entity) acquires a shareholding in a natural gas transmission system operator, if the participation of an existing shareholder exceeds 20 per cent, 33 per cent or 50 per cent, or the operator becomes a subsidiary of a shareholder, an obligation of previous notification and approval of RAE applies, failing which the exercise of the voting rights of the shareholders has *ipso jure* no effect.

If there is a change in the legal form or the shareholding structure of a holder of a licence relating to natural gas activities, the licence must be amended. With respect to listed companies, this requirement applies only if the change results in a change of control.

It should be noted that in view of the envisaged privatisation of the electricity and natural gas transmission system operators, the Greek legislator recently abolished the provisions regarding the privilege of the state to retain, directly or indirectly, control of the operators regardless of the ownership structure as objecting to the EU legislation (free movement of capitals).

Oil

The Greek state is statutorily the sole shareholder of HHRM. In addition, the concessionaires of upstream petroleum rights may not, without the prior consent of the Greek cabinet of ministers, be controlled, directly or indirectly, by non-EU entities.

III TRANSMISSION/TRANSPORTATION AND DISTRIBUTION SERVICES

i Vertical integration and unbundling

Law 4001/2011, which implemented the provisions of the 3rd EU Energy Package into national law, adopted the unbundling model of independent transmission operators for both the electricity and natural gas sectors.

In order to ensure that transmission system operators comply with the unbundling requirements, Law 4001/2011 prohibits any person (individual or legal entity) (1) from having direct or indirect control or any other right over a producer or supplier of electricity or natural gas and simultaneously having such control or rights over an operator of a transmission system of electricity or natural gas or over the transmission system itself and *vice versa*; and (2) from appointing or being appointed as a member of the board of directors or other management bodies of the operator and simultaneously

having direct or indirect control or any other right over a company acting as producer or supplier of electricity or natural gas.

Before the implementation of the unbundling rules in the electricity sector, PPC acted as a vertically integrated undertaking (producer, supplier of electricity and owner of both the national transmission system and the national distribution grid (including the grid of the non-interconnected islands)). In 2001, PPC assigned the management of the national electricity transmission system to its subsidiary, Hellenic Transmission System Operator SA ('HTSO'). PPC retained both ownership and operation of the distribution grid.

After the 2012 unbundling the following changes occurred.

Electricity

PPC assigned both the ownership and management of the national transmission system to a wholly owned subsidiary company called the Independent Power Transmission Operator SA ('ADMIE'). ADMIE commenced operations on 1 February 2012 and is entirely independent from its parent company in terms of legal status, management and operation and it retains effective decision-making rights.

HTSO became the company now known as Operator of the Electricity Market SA ('LAGIE'), which also commenced operations on 1 February 2012 and is responsible for the management of transactions in the wholesale electricity market.

PPC has retained ownership of the national electricity distribution grid but has assigned its management to the Hellenic Electricity Distribution Grid Operator SA, a wholly owned subsidiary of PPC.

Natural gas

In the natural gas sector, even prior to the implementation of the unbundling requirements, the ownership and management of the national gas transmission system had already been transferred from DEPA to DESFA. Under the current regime, DESFA has retained ownership and operation of the transmission system and is required to be certified by RAE as an unbundled operator to ensure its independence from its mother company DEPA or any of its affiliated companies.

ii Access to the transmission, transportation and distribution systems

Greek law ensures full access on a non-discriminatory basis to the transmission and distribution systems in both the electricity and natural gas sectors.

Electricity

Producers, traders and suppliers of electricity acquire the right of access to the system once they have been entered into the register maintained by LAGIE. This does not apply in respect of RES producers, who gain access by entering into bilateral power purchase agreements with the competent operators. Under certain circumstances, access may be denied to RES projects if the interconnection area is classed by RAE as one that is saturated due to technological restrictions or overload. In such areas the issuance of a generation licence is prohibited until capacity becomes available.

Natural gas

In the natural gas sector, users may participate in the national gas system once they have been entered in the register kept by DESFA and are entitled to make use of transmission services, liquefied natural gas ('LNG') facilities, storage facilities and reserve of capacity on the basis of bilateral agreements with DESFA.

iii Access tariffs

Electricity

With respect to electricity, RAE determines the tariffs taking into account the operators' proposals. The calculation methodology takes into account the production or purchase cost of electricity plus a reasonable return on invested capital. The aim is that the tariffs reflect, to the extent possible, the cost imposed on the system by the users' installations, and help users manage the demand and load variation.

Natural gas

In the natural gas sector, YPEKA sets out the calculation methodology for the applicable access tariffs. Using such methodology DESFA determines annually the basis of the tariffs for transmission services and the use of LNG facilities. Furthermore, the final tariffs are determined in a manner that ensures that DESFA receives 90 per cent through charges imposed on the maximum capacity reserved by the users and 10 per cent through charges imposed on the quantities transmitted through the system or gasified at the LNG facilities on behalf of the users.

IV ENERGY MARKETS

i Organisation of energy markets

Electricity

The wholesale electricity market is organised as a mandatory pool based on bilateral commercial relations between consumers and suppliers and producers. The operator does not interfere in such bilateral agreements, but it is responsible for the coordination of the settlement of such transactions.

In particular, the wholesale market is structured as a day-ahead market. LAGIE performs a day-ahead scheduling with the aim of achieving the optimum 24-hour operation of the electricity generation units for the next day (imported electricity also being considered) in order to meet the demand of consumers and exporters at the minimum cost. The day-ahead scheduling is remunerated at the marginal system price, which is equal to highest price quoted among the group of lowest bidder units that must operate in order to meet the demand of next day. Suppliers and producers or importers of electricity buy and sell electricity at the system marginal price.

In addition to the foregoing, a real-time market of *ex post* clearing of deviations between the real quantity of electricity finally produced and the quantity that was estimated to be produced also operates.

Furthermore, LAGIE enters into bilateral agreements with producers in relation to ancillary services (transmission of electricity from the points of injection to the points of consumption) following tender procedures.

Apart from the wholesale market described above, a market of long-term guarantees also exists whereby producers are remunerated to keep their units at operational alertness on an annual basis and recover part of their capital cost in this way. The market operates through bilateral contracts between producers and suppliers. LAGIE may hold auctions in order to facilitate the conclusion of such contracts.

Retail sale of electricity is based on bilateral agreements between suppliers and final consumers. With the aim of linking the retail prices to the wholesale prices, the prices for the supply of electricity to high voltage consumers were liberalised in 2008 and are freely negotiated between the contracting parties, and the prices for medium voltage consumers were also liberalised in 2010. The prices for the supply of electricity to low voltage consumers remain subject to regulation until 30 June 2012, and for this reason must be approved by YPEKA.

In addition to the foregoing tariffs, all consumers in Greece are burdened with a surcharge set by the Ministry for provision of public services to vulnerable categories of consumers (i.e., consumers on non-interconnected islands and consumers in a poor financial condition) in order that the supply of electricity is offered on similar terms for all categories of consumers.

Natural gas

In the natural gas sector, DESFA prepares weekly and daily schedules of transactions, as well as monthly and annual schedules for the unloading of LNG during the year. The natural gas market is based on agreements between DESFA and the users of the system for provision of transmission services (reception of natural gas quantity from one or more entry points, transmission through the system and delivery at one or more exit points) and LNG services (LNG cargo unloading and discharge, detachment of the LNG vessel, temporary storage, regasification of LNG cargo).

Retail sale of natural gas to final consumers is based on bilateral agreements with the suppliers, and prices are freely negotiated between the contracting parties. The pricing policy of the suppliers must, however, comply with the terms of their licence and be notified to RAE. In certain circumstances, RAE may determine a maximum profit margin for a period of up to two months if it considers that prices in effect breach applicable competition rules.

ii Market developments

With the aim of diversifying the Greek energy mix by increasing RES penetration and limiting or, preferably eliminating, the constraints of the liberalised energy market, the following policies are currently being considered:

- a* Details of an Energy Roadmap for 2050 are being discussed, which evaluates alternative scenarios and policies for the achievement of proposed national and EU targets for the reduction of greenhouse emissions by 60 to 70 per cent by 2050 compared with 2005, 85 to 100 per cent electricity generation from RES, total penetration of RES in gross final energy consumption by 2050, significant reduction of oil consumption, increased use of biofuels in transportation sector at a level of 31 to 34 per cent by 2050, development of decentralised production units and smart grids.

- b* Promotion of the use of solid waste for the production of electricity (mainly in cement industries).
- c* By 2014–2015, the Greek electricity market must gradually shift, via regulatory changes and market restructuring, to the EU target model for market coupling and price coupling, according to the requirements of the 3rd EU Energy Package (which is not entirely compatible with the currently applicable mandatory pool system).
- d* Revisiting the scheme of financial support to RES producers. This is still an open issue, however, the memorandum agreed between Greece and the troika² favours the feed-in premium scheme, according to which RES producers are paid with the system marginal price plus a premium, instead of the applicable guaranteed feed-in tariff regime.

V RENEWABLE ENERGY AND CONSERVATION

i Development of renewable energy

The production of electricity from RES is regulated by a bespoke legal framework that implements a licensing process with parallel stages, as opposed to serial stages that were in effect in the past. It also implements a simplified licensing process for projects with capacity less than the limits set by law per technology and simplified environmental procedures containing favourable provisions for the installation of PV systems on buildings.

The installation of RES projects in Greece until 2020 takes place on the basis of an allocation schedule determining the desired proportion of installed capacity per technology. Such allocation aims at the achievement of the target of the contribution of energy produced from RES to the gross electrical energy consumption by a share of 40 per cent by 2020. In particular:

<i>Category of RES technology</i>		<i>By 2014</i>	<i>Until 2020</i>
Hydroelectric	<i>Less than 15MW</i>	300MW	350MW
	<i>More than 15 MW</i>	3,400MW	4,300MW
	Total	3,700MW	4,650MW
Photovoltaic	<i>Farmers</i>	500MW	750MW
	<i>Other producers</i>	100MW	1,450MW
	Total	1,500MW	2,200MW
Solar thermal		120MW	250MW
Wind (including offshore)		4,000MW	7,500MW
Biomass		200MW	350MW

The table above demonstrates that priority is given to the hydroelectric and wind technologies; however, photovoltaic technology has higher market growth.

² The European Commission (EC), the International Monetary Fund (IMF) and the European Central Bank (ECB).

ii The feed-in tariff system

Since 2006, a feed-in tariff regime has been established for the financing of RES projects, which ensures fixed tariffs for 20 years. The feed-in tariff scheme is entirely financed via a designated account of LAGIE, primarily funded by a special levy applied to electricity bills as well as the proceeds from the European Emission Allowance auctions until 2015. It should be noted that, at present, the designated account is in deficit which, may, if not covered, jeopardise the payment of tariffs to the RES producers. As a long-term measure, in order to secure the viability of the designated account until 2020, it has been proposed that the feed-in tariff scheme be revised so as to reflect the diluted cost of installation of RES technologies and the increasing cost of funding.

Specific tariffs apply for PV projects, which have been reduced since 1 February 2012 in light of the domestic market conditions (by 12.5 per cent for onshore PV projects and 5 per cent for roof-top PV projects) and which will be reduced further (by 7 per cent) per half-year until August 2014. Finally, an incentive was recently introduced for PV projects, according to which feed-in tariffs are increased by 10 per cent provided that at least 70 per cent of the equipment of the station is made in an EU Member State or a country of the European Economic Area. The framework for the implementation of the above subsidy is yet to be introduced.

iii Energy efficiency and conservation

The improvement of energy conservation and the reduction of energy consumption is one of the main objectives of the national energy policy. In order to achieve this, the applicable legal framework sets out energy-efficiency measures for the building sector, cost-efficient actions concerning final consumption and envisages the creation of an energy services market, which include the following:

- a* An energy-efficiency status certification process applies for residences and professional buildings with a surface area exceeding 50 square metres, which is carried out by energy inspectors, licensed specifically for such purpose. The energy-efficiency certificate is a prerequisite for the sale or lease of the relevant property.
- b* In 2011, YPEKA launched a programme aimed at increasing the energy efficiency of household buildings constructed before 1989, primarily by the provision of low-interest loans. Such programme will remain in force until 31 December 2017. The programme is financed through a designated revolving fund, funded by EU and national sources (which have provided circa €241 million) as well as by the Greek private sector (which has provided circa €400 million). In March 2011, YPEKA launched a second programme, exclusively aimed at municipalities, which will be in force until 31 May 2015. The total budget of this programme is €107 million and is based on the premise that eligible municipalities may obtain up to 70 per cent of their financing from the programme's funds and may provide their own funding for the remaining 30 per cent.
- c* There is a legal obligation for mandatory use of natural gas, installation of thermal solar systems or other RES technologies in public buildings as well as a mandatory quota of clean vehicles in the public sector.

- d* Incorporation of energy services companies ('ESCOS') for the provision of energy-efficiency services to end-users by taking on the business and financial risk. Banks or other financial institutions can participate in order to finance the services. The remuneration of ESCOS amounts to a percentage of the contractually agreed financial benefit for the end-user due to energy efficiency practices.
- e* Apart from the aforementioned measures, energy efficiency in buildings is also promoted through a special programme for the installation of roof-top PV projects, which was launched in 2009 and will be in force until 31 December 2019. The programme encourages individuals and small enterprises that own buildings to install roof-top PV projects with capacities of up to 10kW (5kW in the non-interconnected islands) through an attractive feed-in tariff mechanism with fixed tariffs for 25 years. The income from the production of electricity is tax-free.
- f* YPEKA implements pilot energy-efficiency programmes for schools, villages and islands in Greece, whole neighbourhoods and hospitals.
- g* Law 4001/2011 promotes the extensive substitution of the existing metering systems of final consumption by smart systems. The framework for the substitution has, however, not yet been established due to lack of issuance of the required secondary acts.

VI THE YEAR IN REVIEW

Given the current domestic market conditions, national strategy focuses on two ambitious keystones:

First, a strategic alliance has been forged with Cyprus and Israel in order to jointly promote the exploration and exploitation of hydrocarbons in the eastern Mediterranean region and to create new routes of delivery of hydrocarbons to Europe. Memorandums of understanding have already been signed in this regard between the aforementioned countries. At the same time, the Greek state has shown commitment to pursue the exploration and exploitation of potential petroleum reserves in the Ionian Sea in western Greece.

Second is the introduction of the Helios project, through which electricity produced from domestic photovoltaic stations is exported to other EU Member States. The underlying concept of the project is based on the idea that Greece is an ideal place for efficient solar production because of the hours of sunshine per year. The plan is to develop solar installations of a total production capacity of 10GW and export the electricity produced to northern EU countries. There are, however, key issues that need to be addressed prior to the roll-out of the programme, such as (1) the applicable financial support regime in respect of the exported electricity, (2) the transportation method to be used in relation to the exported electricity (i.e., physical or virtual transmission); (3) matters related to the level and terms of participation of local industries in the programme; and (4) the technical challenge of constructing a grid capable to transport the energy produced.

In addition to the above, pursuant to the Memorandum with its creditors, Greece has the following obligations, which are aimed at making the energy market more competitive:

- a* to provide third parties with access to units producing electricity from lignite and hydroelectric units, an activity that is currently within the remit of PPC; and
- b* to privatise DEPA, DESFA and PPC.

Another very important matter is the routing of the natural gas transmission pipeline from Azerbaijan to Europe through Greece, which will contribute to the diversification of natural gas suppliers and delivery routes throughout Europe. In March 2012, the Shah Deniz II consortium, the developer of Azerbaijan's gas field, confirmed ITS selection of the proposed route – the Trans-Adriatic Pipeline – which passes through Greece.

VII CONCLUSIONS AND OUTLOOK

Investment in energy is a key factor in driving Greece out of its current economic crisis. Greece's climate presents a considerable comparative advantage when it comes to wind and solar project development and the Helios project is a vision to capitalise on this. There are, nevertheless, a number of challenges to overcome, namely the funding of the feed-in tariff regime on a sustainable basis, the need for grid upgrades and, most importantly, availability of financing. There is also reasonable optimism regarding the prospects of the exploration and exploitation of hydrocarbons recently promoted by the Greek government, which, if successful, will certainly give a boost to the domestic economy.

Appendix 1

ABOUT THE AUTHORS

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Euripides Ioannou specialises in the areas of banking and finance, project finance and energy. His experience includes acting on a wide range of complex project finance, concessions, structured finance and acquisition transactions. His energy practice includes advising clients on regulatory and environmental matters, thermal and renewable energy projects, biofuels, geothermal energy and electricity trading.

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