

THE CYPRUS ENERGY FORUM

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Cyprus Energy Policy

The long term Strategic Plan of Cyprus is aligned with the European Union Directives and is based on the following:

SECURITY OF SUPPLY

- Diversification of energy sources
- Maintaining national security stocks

ECONOMIC EFFICIENCY

- Decrease the Cost of Energy in general and Electricity in Particular (Presently one of the highest in EU)
- Decrease the Cost of Production

ENVIRONMENTAL CONSIDERATIONS

- Contribution by Renewable Energy Sources 13% by 2020.
- Reduction of CO₂ emissions and improvement of power generation efficiency

The Cyprus Electricity Market

- Small and Isolated System
- The Electricity Market in Cyprus has been operating on the basis of a single provider for more than 50 years
- Almost 100% of Electricity in Cyprus is still generated and supplied by a single state company, the Electricity Authority of Cyprus (EAC)
- Cyprus Accession to the European Union introduced new obligations and constraints concerning the Electricity Market (Liberalization, Fuel, Emissions)

Key Law Provisions

- 1st May 2004 – Market Liberalised by 35%
- 1st January 2009 – Market Liberalised for all “non-domestic” consumers bringing market liberalisation to 65%
- January 1st 2014 – All consumers of Electrical Energy will be free to Select their Supplier according to their best interest
- Several licenses for IPPs (Independent Power Producers) were issued by CERA (Cyprus Energy Regulatory Authority) and although none of these projects has materialized so far, there is recently increased interest for IPP’s to enter the market

The Natural Gas Market – General

- According to EU Directives Cyprus qualifies and is classified as an Emergent Market for Natural Gas and also as an Isolated Market (10+10 years)
- Unlike the electricity sector, which has been liberalized, the gas sector, according to the last amendment of the law Regulating the Natural Gas Market as well as the relevant Council of Ministers Decisions, shall be fully monopolistic for a period of 20 years
- The Natural Gas Public Company (DEFA), which is controlled by the state, has been appointed by Government as the **Sole Importer and Distributor**, of any form of Natural Gas, in Cyprus
- DEFA is currently in discussions with the Government to widen its role and activities

The Natural Gas Market - Setup

- The Council of Ministers have decided that Natural Gas will be imported and distributed to Cyprus, only through the state company DEFA
- To promote the use of Natural Gas, EAC's expansion plan includes the installation Natural Gas powered CCGT's, of 220MW each
- It has also been decided that all new Power Generating facilities over 50MW must be powered using Natural Gas
- It is estimated that Cyprus Energy needs in Natural Gas will be approximately 1BCM per year

DEFA's Role



Why Natural Gas?

Increase competitiveness of Cypriot economy

- Decouple economic growth from cost of energy and increase efficiency of power generation
- Connect Cyprus to the rest of the EU by constructing the missing links which will integrate the network infrastructure for transporting and trading energy across the EU
- Lower Electricity Tariffs to consumers (Industrial, Commercial, Touristic, Domestic etc.

Overcome environmental obstacles

- Protection of the environment and adherence to environmental commitments
- Decrease substantially CO₂ emissions and associated costs

Increase diversification and security of energy supply

- Minimization of the dependence of the national economy on a single source of energy through the diversification of energy sources
- Investment in gas and electricity infrastructure which will facilitate trading and help a truly functional and competitive electricity market to develop

Strategic Plan

- I. Under the Government of Cyprus Energy policy, DEFA was appointed as the sole importer and distributor of Natural Gas to Cyprus.
- II. Furthermore DEFA is responsible for developing the GAS NETWORK infrastructure.

Initially the network will consist of 3 pipelines connecting the prospective Natural Gas Receiving terminal with the three existing downstream power stations. Identification of possible routes for the aforementioned project was completed in April 2011. Final route selection was made in September 2011.

| | | |
|----------------------------|-----------------------|---------------------------|
| Vasilikos Power Station | Moni Power Station | Dhekelia Power Station |
| • ≈0.6 km pipeline | • ≈12 km pipeline | • ≈65 km pipeline |

- III. DEFA is also studying the creation of the Natural Gas Network necessary for distributing gas all over Cyprus, as well as for transport.

Long Term Supply of Natural Gas

- In 2010, DEFA was engaged in negotiations with a number of suppliers regarding the Long Term Supply of Liquefied Natural Gas (LNG) to Cyprus.
- During negotiations information came to light that there might be appreciable Natural Gas reserves in Cyprus Block No. 12, the exploitation rights of which were assigned to Noble Energy. As a result, discussions with prospective LNG Suppliers came to a halt.
- Noble Energy began drilling in plot No. 12 (“Aphrodite”) in September 2011 and final confirmation regarding any Natural Gas reserves is expected by the end of the year.
- The decision on how Natural Gas will be transferred from Block 12 to the receiving terminal and from there exported overseas (via a Liquefaction Plant), is a political decision that will need to be taken by the Council of Ministers, and it is still pending.

- In July 2010, DEFA hired Consultants to provide Engineering Consultancy Services for the Development of a Gas Pipeline Network.
- Preparatory Work on Phase “A” of the pipeline project (to supply all Power Stations) has since been running uninterrupted. Actual construction work is estimated to begin in 2012.
- The **Feasibility Study, Environmental Impact Assessment Study, Risk Assessment Study** and **Economic and Financial Analysis Study**, were completed. The Final Route for the “back-bone” Pipeline Network has already been decided.
- Towards the construction of the aforementioned Pipeline Network, (estimated cost €60M) DEFA has managed to secure €10M of E.U. funding under the European Energy Programme for Recovery (EEPR).

The Future

- There can be no way back as far as the decision to import, distribute and use Natural Gas in Cyprus, at the earliest possible, is concerned.
- If appreciable Cyprus Natural Gas Reserves are confirmed, then a suitable Commercial and Export Policy should soon be decided, turning Cyprus into an important Energy hub in the Mediterranean.
- In any event the impact of these developments will be huge and definitely positive in all Sectors of the Cyprus Economy and of the wider Region as well.

Investment Opportunities in the Cyprus Energy Sector



As a result of ongoing developments, the following investment sectors can be identified:

1. Exploration (2nd Licensing Round)
2. Submarine Pipeline(s)
3. Liquefaction Plant(s)
4. Cyprus Internal Natural Gas Distribution Network
5. Electricity Power Generation
6. Use of Natural Gas in Transport (buses, cars, etc.)

Thank you