THE ENERGY IN ALBANIA

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NEWSLETTER

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SITUATION IN OIL INDUSTRY AND REFORM UNDERTAKEN

(.....Continued from previous issue.....)

2.Development after 1997, Restructuring

Considering the bad situation in oil industry, the Strategic Sectors Privatization Strategy, prepared by the Council of Ministers and approved by the Albanian Parliament Law No. 8306, of 14.03.1998 (On Privatization of Important Sectors), defineds also the objectives for restructuring and privatization phases of former "Albpetrol" sh.a. company. These objectives should be completed through: restructuring the former oil and gas company "Albpetrol" sh.a.; keeping the existing agrements of "Albpetrol" sh.a. and attracting other invetors in the free zones; privatising the former "Albpetrol" sh.a.

The restructuring was become effective with the issue of Decree of Council of Ministers No. 756, of 26.11.1998. With this Decree, "Albpetrol" sh.a. was transformed into "Albanian Petroleum Coorporation (APC)" company, which created the daughters companies "Albpetrol" sh.a, "ARMO" sh.a. and "Servcom" sh.a. The restructuring aimed to improve management, create the effective structures for an increased production, enhance the financial results, attract the investments and prepare the sector's privatisation.

Based on the previous experience, the work is focused on: taking measures for interrupting the worsening of tecnical and economic indicators;

programming of activity of the controlled companies; managing of financial sources; control for implementation of legal dispositions and statutory norms.

Restructuring effects, conclusions

During 1999-2001, the Public Oil Industry, organised as a group of companies of APC sh.a., stopped the 10 year period of crisis of the sector. During this 4-year period of restructuring: it is stabilized the situation and has made possible the evident increase of all economic and financial parameters; it is improved the technical situation in the plants and it is realized a full cycle activity; it is improved the internal financial situation and transparency; it is improved the managerial situation; it is improved the legal relationship between the companies; there are created the necessary structures for a real, transparent and successful privatisation process; there are resolved many problems as old debts, social issues, company's properties, etc.

Despite the problems faced, the progress done is evident, but the restructuring process is a long and continuous one.

Privatisation process

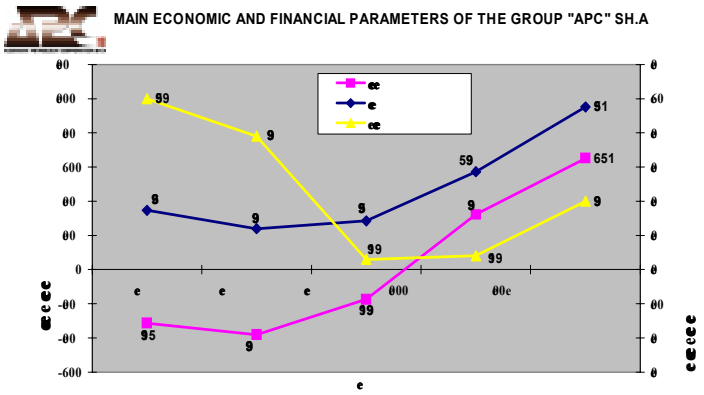
The main aim of the restructuring process was the privatisation of the sector, which could not be achieved without restructuring. After a 4-year period the situation is stable and the trend is toward gradual increase of production and improvement of financial and economic indicators. The public oil sector has the following specifics: it's the only public productive sector under privatisation process; encompasses a large area, almost all the country; has inherited very old technology and infrastructure; operation and production activity is unique, without competition, while commercialising activity is open to market rules; there is a large number of employees and consequently huge social problems.

Privatization of the sector is supported by Law No. 8306, of 14.03.1998 (On Privatization of Important Sectors). The steps undertaken till now had as main objective restructuring of "Servcom" sh.a. So, there are created three separated companies, which cover transport and mechanical maintenance activities, while "Servcom" sh.a. has maintained the strategic activities. For the two other companies "Albpetrol" sh.a and "ARMO" sh.a. it is requested the assistance of an international consultant (IMI). It is prepared the document on privatisation strategy together with the draft laws of privatisation. At the same time this companies has been under a restructuring process.

Development Strategy

During the restructuring process, the indicators show that the performance of companies has been improved (see figure) and, at the same time, there are created the necessary conditions for the preparation of midterm development strategy of the oil sector, which includes (according to field of activity):

1. *Management:* consolidation of activity of companies; improvement of administrative activity; legal performance of companies; increased transparency of activity.
2. *Oil and gas production and elaboration:* steady increase of oil from existing oilfields; gradual increase of gas production; better exploitation of Ballsh and Fier Refinery Plant and improvement of quality for oil products.
3. Service: radical improvement of drilling and supporting works



in the wells; enlargement of activities of companies that covers transport and mechanical maintenance.
4. Environment: improvement of operations for conservation of uncontaminated areas; improvement and rehabilitation of environment in damaged and rehabilitated areas; exploitation of natural resources for a sustainable development.
5. Privatisation: continuation of the transparent and effective privatisation process, legally supported.

The development of Albanian Oil Sector has received the estimation of international institutions like IMF and WB.

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PHOTOVOLTAICS USE FOR WATER SUPPLY TO RURAL AREAS IN ALBANIA

Background

The transition period in Albania is still lasting and has been more difficult than expectations. The main concern of the governments in Albania has been the stabilization of macroeconomic issues while social, environmental and other issues have not received enough attention. The availability of energy supply in Albania is one of the key limitations on economic growth. The need of the country for electricity could reach peaks of 27 million kWh per day while, during the last year, the Albanian power system could generate up to 6-7 million kWh per day. According to specialized institutions, during the coming years, the electricity demand will continue to increase with a rate of 8-9 % per year. It is evident the need for new generation capacities in the very near future. Although a high proportion of electricity in Albania comes from clean hydropower, the old equipment and inefficient use of thermal plants are the main contributors of reduced electricity security of supply, increased GHG emissions and air pollution. On the other hand, in Albania, there is an urgent need for increasing the thermal generation in order to have the possibility of improvement in power balance and power supply.

The improvements in electricity security of supply, environment protection, poverty reduction, and business promotion

are the main targets of the project "Photovoltaics Use for Water Supply to Rural Areas in Albania". The project is initiated and will be implemented by the Albania-EU Energy Efficiency Centre (EEC) and supported by Small Grant Program GEF (GEF/SGP) and OSCE offices in Tirana. During the last two decades, the photovoltaics (PV), i.e. solid-state electronic cells that produce direct current electricity from the radiant energy of the sun, have made an important progress and evolved from specific utilizations applicable for space travels, to an energy source that can be utilized on earth. Photovoltaics are truly elegant and attractive means of producing electricity on site, directly from the sun, through modular employment, without concern for energy supply or environmental harm, without moving parts and noise and without particular maintenance. Photovoltaics are also exceedingly versatile - the same technology can be used for water pumping, electrification of rural areas, telecommunication, maritime signalling, data gathering systems, street lighting, electricity supply for buildings, up to electricity production through grid connected centrals of several MW.

One of the measures for relieving the energy crisis in Albania could be the introduction of photovoltaics systems, which should be considered where feasible. On the other hand, in the framework of electricity tariff changes in Albania (prices increase) this solution becomes more interesting, especially in the near future. The trend of the world market for photovoltaics is toward cost decrease and efficiency increase, in such extend that makes the solar energy attractive compared with traditional sources of energy generation. This is truer if it is considered the cost's increase of traditional ge-neration systems with the compulsory measures against pollution.

Project Description

The project consists of two components that reflect two of the main promising fields of PV use in Albania. The project aims to realize:

- Potable water supply through boreholes solar pumping for a village in rural area with problems of water and electricity supply.
- Irrigation supply by pumping water through boreholes, canals or other water source for a village. The pumps will be supplied by photovoltaic systems.

Both components will be implemented in co-operation with local administration and benefiting community of involved villages.

EEC considers this way of utilization of solar energy in Albania as very interesting. It is evident the situation in Albania with enormous problems of drinking water supply and electricity supply, especially in rural areas. To the severe problems of electricity interruption and shortages, it is added the bad quality of electricity supply (mainly low voltage and voltage fluctuations), which doesn't permit to the existing pump to work where water is available. The same problems are faced in irrigation of such areas. So, realisation of drinking and irrigation water supply through solar pumps could be an excellent alternative for solving the above problems and fulfilling the needs for water of rural areas.

Objectives of the Project

Through the implementation of this project, in Albania, EEC aims to achieve a multiple result:

- Implementation in Albania of the first PV systems, which will have a great importance for the dissemination of this environmental friendly technology;
- Influence the relieve of energy crisis by giving a new alternative (solar energy) to traditional energy sources;
- Decrease the pollution through introduction of a clean energy source;
- Testing the real possibilities of this technology and contribute to its development. This is very important for the future utilization of this technology in Albania;
- Presenting a possible solution for supplying potable water to rural areas, which directly affect the poor quality of life in this areas;
- Presenting a possible solution for supplying irrigation water to rural areas that directly affect the productivity of land and so contribute to reduction of poverty, and;
- Promote agricultural business, this being strongly connected with poverty alleviation in rural areas.

Activities under the Project

Main activities under the project are:

1. Selection of a community (village) to be supplied with potable water by solar pumps;
2. Selection of a community (village) to be supplied with irrigation water by solar pumps;
3. Performing measurements on solar radiation for confirming and completing the data of Hydro-meteorological Institute for selected sites. These data are necessary to evaluate accurately the project technically and financially, as well as to create a methodology;
4. Investigation of market and selection of PV producer;
5. Design of necessary civil, mechanical and hydro-technical works (reservoir, pipes, etc.);
6. Design of photovoltaics systems;
7. Agreements and purchase of photovoltaic systems;
8. Training onsite of EEC specialists on producer tech nology, products, applications, assembling, etc.;
9. Implementation of two components of the project: supply of potable and irrigation water in two villages;
10. Participation of the involved parties, training of system users, etc.;
11. Organization of seminars on solar energy and photovoltaics utilization, with participation of institutions, communities and interested individuals;
12. Organization of an awareness campaign on advantages of solar energy and photovoltaic systems, on environmental benefits, etc., and;
13. Monitoring, dissemination of the results and survey.

Through these activities the project is completely realised; from the feasibility phase, to the demonstration of the technology and implementation of two components.

Final Remarks

The project has started in June 2002 and it is expected to be implemented within 12 months. In order to achieve the full objective of this project it is necessary to organize some supporting activities such as: several seminars on photovoltaics utilization and their specific application for water pumping; an awareness campaign on advantages of solar energy and photovoltaic systems, the benefit on environment, etc.; and at the

end, a public survey that will help to give the conclusions of the work performed.

These activities are important not only for this project but also for the future of this technology in Albania. This project can be considered as an important step in introducing to the Albanian communes and villages the issues such as technologies and management of photovoltaic systems and consequently bring steady improvements in the long term. Considering the very promising results and outputs of this project, which reflects the EU countries experience and standards, in the near future EEC aims to continue to work in disseminating them.

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Director
Energy Efficiency Centre

SITE SELECTION FOR CONSTRUCTION OF THE NEW COMBINED CYCLE POWER PLANT (3x135 MW)

1. Introduction and Background

Currently KESH is facing a difficult situation, even that in the last two years it is done a big progress related to reduction of technical losses and reorganization of KESH. In addition, during these years KESH is facing unusual severe crisis, cutting electricity to customers 6-8 hours per day. The daily electricity consumption in wintertime, with limitations, is around 20 Millions kWh per day. So, the electricity balance is very tight and KESH has become a net importer. Based in this situation US Trade and Development Agency is sponsoring a full feasibility study, which has four phases as follows:

First Phase: Review all Available Data/Information and Previous Studies and Site Selection for the construction of a new power plant,
Second Phase: Define Technical Options, Conduct Detailed Engineering Analyses, Develop Detailed Project Cost Estimates and Conduct Financial, Economic, and Socioeconomic Analysis,
Third Phase: Conduct a Full Environmental Assessment for the Selected Site, and
Fourth Phase: Develop a Detailed Project Financing Plan and Preparation of Tender Documents.

In accordance with the Amendment Number 2 of the Contract between the Ministry of Industry and Energy and MWH Energy & Infrastructure, Inc., MWH Management Consulting was responsible for determining the best site, technology, and fuel for a new baseload thermal generation facility in Albania, and performing a feasibility study of this facility. The first report, which is the Siting Report, was developed based in investigation of the construction of a 100 MW baseload generation facility. However, potential expansion up to 300 MW was evaluated as well. During the preparation of the Report, a number of meetings and site visits were held in Albania with the Ministry of Industry and Energy, National Agency of Energy (NAE), and the Albanian Power Corporation (KESH). The Government of Albania has proposed Vlore as the best site for the proposed power plant. In order to verify that this site is the best site for the development of a new thermal generation facility, MWH reviewed several other sites that have been identified by KESH and NAE. These additional sites include Durres, Elbasan, Cerrik, Korce, Fier, and Shengjin.

2. Methodology

In its initial review and assessment, MWH and National Agency of Energy´s staff of considered potential fuel availability and transmission interconnections, as well as water availability and quality, environmental considerations, socio-economic considerations and land availability. Several of the key considerations that were involved in these investigations included:

- Accessibility to power markets,
- Proximity to transmission line(s) with available capacity and non-constrained access to demand regions,
- Accessibility to fuel (natural gas, oil, and coal),
- Space for future capacity expansion,
- Potential impacts of interconnection of the proposed project(s) on the transmission network overloads and/or reliability,
- Overview of potential environmental issues (wetlands, air emissions, wastewater discharge, etc.), particularly noise for sites located near urban and heavily populated areas,
- Socio-economic impacts (i.e. issues regarding sensitive receptors such as visual impacts, proximity to residential development, regional/local perception of industrial development, etc.),
- Access to roads, rail and navigable waterways,
- Access to water supply,
- General site preparation considerations,

The World Bank, European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB) have specific policies and procedures for promoting environmental protection and sustainable development. These procedures typically include a detailed environmental review process prior to final approval of financing for the project. Under the World Bank's environmental review process, thermal generation facilities are considered Category A projects and require a comprehensive Environmental Impact Assessment (EIA) or suitably comprehensive regional or sectoral Environmental Assessment (EA). The EIA provides an assessment of the potential positive and negative environmental impacts of the project and compares them to feasible alternatives including the "without project alternative." The EIA should also recommend any measures needed to prevent, minimize, mitigate, or compensate for adverse environmental impacts and improve environmental performance. In addition, the EIA must outline specific environmental management and monitoring plans and identify reporting requirements and time frames. The EIA study will be carry out after the approval of the site from Council of Territory of the Republic Albania.

(.....continued on next issue.....)

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National Agency of Energy