

JORDAN

GATEWAY TO BUSINESS OPPORTUNITIES IN THE MIDDLE EAST

"THE ENERGY INFRASTRUCTURE PROJECTS ARE REAL OPPORTUNITIES FOR INVESTORS"

The Hashemite Kingdom of Jordan stands at the cross-roads of trade and cultural exchanges in the Middle East and Africa region. Through its proven commitment to just peace and security, its active pursuit of economic growth, and the excellent qualities of human resources, the country is now positioned to realize its full potential as a hub for development and a regional catalyst for investment opportunities. In recent years, Jordan's much acclaimed record in domestic development has enhanced its eligibility to play an instrumental role in the promotion and expansion of regional and global trade.

Within the Kingdom, remarkable progress has been made toward entrenching the democratization process and toward effecting a through structural adjustment of economy. In order to ensure that, emphasis has been placed on enhancing the role of the private sector, both in the short and long-terms.

Energy

Energy is of vital importance for the process of production and manufacturing and as such a key element of sustainable development and has always been important to humanity. During the last two decades, the rising cost of energy has posed a difficult challenges for Jordan due to the country's meager local resources of economic energy and its reliance on imports.

In recent years, Jordan has been undergoing a momentous transformation process, based on a major restructuring of the country's economy.

In order to fulfill the security of supply and overcome the negative effect of the current energy situation, His Majesty King Abdullah Bin Al Hussein II, entrusted a Royal Committee headed by His Royal Highness prince Hamzeh Bin Al Hussein to review and modernize the country's comprehensive Energy Strategy and in order to ease the pressure on the national economy many infrastructure energy projects were determined in the updated Energy Strategy with the total of \$ 14-18 billion up to 2020 in different fields such as power sector, oil sector, oil shale exploration, improving energy efficiency, renewable energy and natural gas. In addition, the oil market will be open for competition and private sector firms and international companies can compete and invest in Jordan's burgeoning downstream market and achieve the most efficient allocation of resources. Furthermore, four marketing and logistic companies will be established and transparent pricing policy reflecting international prices will be applied.

The Government of Jordan is proud of the reforms and development that have taken place in the energy and remains strongly committed to maintaining and deepening the reform program with the main priority of attracting long-term foreign investment and capital inflows and in order to succeed, the government has been working hard to create stable and investor friendly environment based on openness, consistency and non-discrimination including drafting laws and legislations with terms favorable for private investment, privatization of state owned assets, developing of a modern infrastructure and investing in the development of Jordanian labor force.

At present there are several opportunities for interested investors in energy sector and need for new investment in order to meet growing demand for energy and we are inviting investors within the region and beyond to enter into the Jordanian energy market with a set of investment projects which are by no means exhaustive; because, like all democratic, promising, stable and emerging economies, Jordan has a great deal to offer.

***"THE INVESTMENT IN ENERGY SECURITY FOR TOMORROW,
AND THE DAY AFTER TOMORROW, HAS TO BEGIN TODAY"***

Major Investment Opportunities in the Energy Sector in Jordan

Objectives of all the Projects:

Objectives expected to be achieved by implementing the below energy projects are to satisfy increasing energy and electricity demand, encourage private sector investment in the energy sector and increase job opportunities during projects implementation and positively affect the general economy situation in Jordan.

Oil Sector:

*** Project Title: Jordan Petroleum Refinery Company's Fourth Expansion Project**

Project Description

Jordan Petroleum Refinery Company (JPRC) is the single refining company with a capacity of around 100,000 B/D (4.4 MM tones/year). This company is going to be modernized and expanded in order to meet the projected growth in Jordanian demand for light and intermediate petroleum products, and to comply with the world-wide move to cleaner fuels.

The expansion of the company will consist of:-

- Increasing the crude distillation capacity to be 18000 ton/year to increase production of petroleum products by adding vacuum units, RFCC, Hydro crackers.
- New reformer and isomerisation units to enable unleaded gasoline production.
- A distillate hydrotreater for low sulfur diesel products and Naphtha units.

- Increasing the storage capacity .
- Adding Sulfur plant, Hydrogen plant and Solvent deasphalter units.

The estimated cost of the project is around US\$ 1.5 billion. The refinery has completed all its required feasibility studies and the strategic investor will be selected during 2009.

Project Title: Restructuring the Petroleum Sector

In order to proceed with the program of restructuring and liberalizing the oil sector and open the market for competition, four marketing/distribution companies and one logistic company will be established. The tenders for establishing these companies was issued on September 14th 2008. The qualified companies will be invited to submit their financial and technical proposals by the end of September 2009.

Electricity Sector

Project Title: Construction of Electricity Generating Units on BOO basis
(The additional generating capacity of 4000 MW is needed till the year 2020).

Project Description

Due to the rapid growth in demand for electric power in Jordan, the Government of Jordan decided to invite foreign investment and develop its first IPP in the country with the capacity of 370 MW. The first phase of this project is already in operation since July 2008 and the second phase as a combined cycle will be in operation in July 2009, while the second IPP project with the capacity of 373MW is in process. The commercial operation of the first phase will be in November 2010, and the second phase in August 2011.

Meanwhile, in order to increase the electricity capacity of generating system to meet the local electric demand which is expected to grow at 7.4% during the period 2008-2020, more than 4000 MW is needed as an

additional capacity to be added to the system with an average of 300 MW per year on BOO basis which consider as continuous projects using various technologies with the total cost of \$US 4-5 billions.

Renewable Energy

Jordan will promote the Renewable Energy Source to share 7% in the primary energy mix in 2015, and 10% in 2020.

To achieve this, 1200 MW of renewable energy will come on pipeline projects through wind and solar energies.

Wind Energy Projects:

Two Lots of Wind Farm projects approx. 300 MW each is going to be implemented. The First Lot comprises three projects in three sites, Al-Kamshah, Al-Fujeij and Al-Harir.

The first wind project at Al-Kamshah site (north of Jordan) with a capacity of 40 MW is in final stage of negotiation with the preferred bidder (Greek Company) and planned to be in operation during the year 2010. The second project at Fujeij site (east of Jordan) with a capacity of 90 MW is tendered for prequalification in April 2009 and planned to be in operation in 2011.

In addition, Jordan would like to see more rapid development of wind parks, and so it is intended to Pool the potential wind park sites at Harir, Wadi Araba and Ma'an (south of Jordan) with the capacity of 300-400 MW in one international bidding process at the end of 2009.

Solar Energy Projects:

The Government of Jordan is seeking to increase the solar thermal applications in all sectors and encourages Solar Thermal Application (SWH) in households and major housing schemes. Currently 14% of the housing schemes are applying SWH and is expected to reach to 20% by 2013. In addition, Jordan is seeking to add 300MW of Concentrating Solar Power (CSP) in its electricity generation by 2020 and introduce Photovoltaic System in remote areas.

Oil Shale

Jordan will promote the oil shale as a new source of energy to share 11% in the primary energy mix in 2015, and 14% in 2020 by attracting the private sector to invest in oil shale in the area of:-

- **Generating electricity through direct burning**

A frame agreement was signed on April 30th, 2008 with Estonian Governmental Electricity Company to develop a 600-900 MW project for power generation using direct combustion of oil shale on BOO basis. A complete proposal will be submitted within a period of three years and the expected commercial operation date is 2015.

- **Surface retorting to produce oil**

In regard of the development of oil shale surface retorting, two stages strategy has been adopted; the first stage started by issuing call for proposals and eight companies signed memorandums of understanding where four companies are conducting exploration program and later a feasibility studies will be conducted depending on the results of their studies and the other four companies are preparing a bankable feasibility studies to prove the feasibility of such investment and technologies and concessions will be granted accordingly. The second stage will be launched after completing the exploration program of the uranium deposits during the 2nd quarter of 2010 and new blocks will be opened to attract new interested companies.

- **Deep oil shale**

A Memorandum of Understanding (MOU) was signed with Shell Company to evaluate, develop and exploit the deep oil shale resources for extraction of oil through a process called In-Situ Conversion Process (ICP). The government signed a commercial agreement for this project with Shell company. This agreement is in the process of approval by the Parliament.

Energy Efficiency

- Implementation of intensive energy efficiency programs.
Jordan is in the process of implementing a conservation program which has a potential to reduce energy consumption by 20%.

- Exempting the Energy Saving Bulbs from custom duties.
 - Providing some incentives to replace old vehicles in the transport sector.
 - Developing a program to increase the use of domestic Solar Water Heaters.
-
- Initiating a program for energy saving in street lighting.
 - Establishing Energy Labeling System for household appliances.
 - Establishment of the Energy Efficiency Fund to support energy efficiency programs/projects, as well as funding for renewable energy projects.

Contact us :

Eng. Farouq Al-Hiyari

Secretary General

Ministry of Energy & Mineral Resources

e-mail : generals@memr.gov.jo

Tel: +962 6 5863326

Fax: +962 6 5865714

P.O.Box: 140027

Amman-Jordan