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Financial Solutions: Partial Risk Guarantee

Finance, Economics & Urban Development Department **May 2007**
Sustainable Development Network Vice-Presidency

World Bank Issues Guarantee in Support of Jordan's First Independent Power Producer

Project Overview

The Amman East Power Plant project (also known as the Almanakher Power Plant) consists of a 370-MW gas-fired combined-cycle electric power station to be developed, owned, and operated by AES Jordan PSC, a joint venture between AES Oasis Ltd and Mitsui & Co. Ltd. The power station will be constructed on a site located at Almanakher which is approximately 14 kilometers east of Amman, Jordan.

The combined cycle power station will include two simple-gas turbines, two steam boilers and one steam turbine generator, and all necessary auxiliary facilities, including administrative offices, plant control room, warehousing facilities, and workshops.

Natural gas will be supplied to the project by NEPCO (National Electric Power Company), the state-owned transmission company; NEPCO will also finance facilities for fuel supply as well as the transmission facilities required to evacuate the power (a 400 kV transmission line of about 12 kilometers). The gas pipeline (of about 800 meters) will be operated by Fajr (Jordanian Egyptian Falr for Natural Gas Transmission & Supply Company). The gas is being supplied by Egypt through the Arab Gas Pipeline. Cooling water will be supplied to the power station by WAJ (Water Authority of Jordan). The project will treat the water before use and discharge the water into an evaporation pond.

The Amman East Power plant is the first independent power project implemented in Jordan.

Energy Sector Background

The electricity sector in Jordan is governed by the General Electricity Law, which empowers Ministry of Energy & Mineral Resource (MEMR) to establish policies and general rules for the power sector. This Law creates an independent regulatory commission to protect the interest of consumers and investors, approve tariffs and grant licenses for generation and distribution of electricity, including tariffs for independent power producers.

Jordan has about 1800 MW of installed power generation capacity, of which just 14 MW is contributed by renewable energy, with the rest coming from fuel oil, gas oil, and natural gas. Currently, over 1100 MW of power capacity comes from just two power plants, Samra and Aqaba. The electricity demand is expected to grow at an average annual rate of around 6.5%, until 2006, then at 8% to reach nearly 14,000 GWh by 2015 from the current 9,000 GWh

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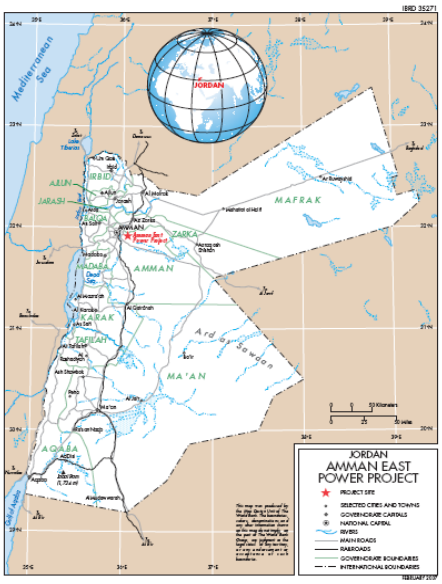

The Amman East Power Project is the least-cost option of meeting the country's electricity demand and maintaining a prudent reserve margin, of at least 10%, supplemented by cross-border supplies. Private sector financing and development will help alleviate the debt burden on Government, and assist in further improving efficiency of the sector.

Project Cost and Financing Structure

The total cost of the project is estimated at about US$ 300 million. This includes a US$ 75 million in equity from the two shareholders (US$ 45 million from AES Oasis Limited and US$ 30 million from Mitsui & Company Limited). A guarantee issued by MIGA will cover up to 90% of the shareholder loans (US$ 30 million).

The debt component consists of a US$ 110 million loan from JBIC (Japan Bank for International Cooperation), US$ 70 million from OPIC (Overseas Private Investment Corporation), and US$ 45 million from SMBC (Sumitomo Mitsui Bank Corporation), which is covered by both the IBRD partial risk guarantee (US$ 45 million) and a MIGA guarantee (US$ 45 million).

Contractual Framework

The contractual structure of the transaction includes the following principal agreements which define the rights and obligations of the major participants in the project.

- *The Implementation Agreement (IA)* between the Government of Jordan (GoJ) and AES Jordan PSC. The IA defines the rights and obligations of the parties and lays out the legal and tax regime. Under the *IA*, the Government grants AES Jordan PSC the right to construct and operate the power station on the site. It assures AES Jordan PSC of all fiscal incentives and other benefits provided in the Electricity Act 1999 of Jordan and the free convertibility and transferability of foreign exchange through the Central Bank of Jordan to meet the company's foreign currency remittances. The *IA* will terminate 25 years after the phase 1 commissioning date unless previously terminated in the event of default or force majeure.

- *Power Purchase Agreement (PPA)* between NEPCO and AES Jordan PSC. The *PPA* provides for the sale of electricity to NEPCO on the basis of a two-part tariff consisting of: (i) a capacity payment, with non-escalable component to cover debt service, and an escalable component to cover return on equity, fixed operation and maintenance costs, insurance and other fixed costs; and (ii) an energy payment composed of a variable operation and maintenance payment. The escalable capacity payment has a foreign component denominated in USD and a JD component. There is no fuel component, this PPA being what is referred to in the industry as an energy conversion agreement. NEPCO will purchase the entire output of the project under the *PPA*.

- *Fuel Supply Agreement (FSA).* All of the distillate fuel oil (DFO) and natural gas requirements of the project will be supplied by NEPCO. MEMR will determine the price for the DFO. The project is expected to consume approximately 22 million GJ (21 million MMBtu) of natural gas per year.

- *Water Supply Agreement (WSA)* between WAJ and AES Jordan PSC. Water for the power station will be purchased from WAJ under the *WSA*. The raw water will come from approximately 18 km away. WAJ will construct, own, and operate the pipeline from the municipal system to the delivery point at the project site. AES Jordan PSC will construct, own, and operate a water treatment facility on the project site to treat the water for use as make-up cooling water in the power station. Used water will be discharged in the evaporation pond.

- *Land Lease Agreement* between GoJ, acting through the Ministry of Finance/Department of Lands and Survey, and AES Jordan PSC. The Government acquired the site specifically for the project and will lease it to AES Jordan PSC under the *Land Lease Agreement.* The Government paid compensation to the former landowners as required by Jordanian law at the time of acquisition.

- *Engineering, Procurement, and Construction Contract (EPC Contract*)

between Doosan Heavy Industries & Construction Co. Ltd and AES Jordan PSC. The *EPC Contract* is a fixed-price date-certain contract under which the EPC Contractor will procure all work and services necessary in connection with the design, engineering, procurement, site clearance, construction, start-up, and testing of the power station. The EPC Contractor has an established track record in turnkey construction work. The lump sum turnkey contract with the EPC Contractor is intended to be complete for all works associated with the project including site preparation, access road, obtaining any additional lay down space for construction materials, and provision of housing for the construction workforce.

- *Technical Services Agreement (TSA)* between AES Oasis Ltd (the Technical Services Provider) and AES Jordan PSC. The Technical Services Provider will render services so as to optimize the ability of the project to meet the contractual requirements of output and heat rate and provide inputs and advice to the project to keep the project in good order.

- *Financing agreements* between various financiers (OPIC, JBIC, and SMBC) and AES Jordan PSC. The Sponsors will contribute equity to AES Jordan PSC according to the *Equity Contributions Agreement*. Debt financing will be arranged through a series of loan agreements, direct agreements, the proposed IBRD, and other related agreements.

World Bank Guarantee

The *IBRD Guarantee* would support commercial lenders to AES Jordan PSC by protecting them against debt service default resulting from the Government not fulfilling its final payment obligation under the project documentation. In particular, the IBRD Partial Risk Guarantee will guarantee a portion of the termination payment due by the Government to AES Jordan PSC in the event that AES Jordan PSC terminates the Indemnity Agreement as a result of:

(i) failure by NEPCO to pay AES Jordan PSC under the PPA, or failure by the Water Authority of Jordan (WAJ) to pay AES Jordan under the PSC, and failure by the Government to pay under the Government Guarantee, or

(ii) failure by the Government to comply with its obligations under the Implementation Agreement. A termination of the Indemnity Agreement will result in the Government owing a "termination payment" to AES Jordan PSC, the latter being designed as damages to investors in AES Jordan PSC from the loss of revenue. IBRD's guarantee only covers this termination payment risk and will not directly cover breach of other obligations undertaken by NEPCO or WAJ under the project agreements, although indirectly there could be any number of underlying caused for NEPCO payment default and termination of the PPA, or for breach of the Government of its obligations under the Implementation Agreement. These potential causes include NEPCO or WAJ insolvency, prolonged and catastrophic events of *force majeure*, and political violence.

Benefits of the Guarantee

The benefits of the Partial Risk Guarantee reflect the partnership with the private sector for the benefit of Governments, Project Sponsors, and Lenders. Specifically, the Guarantee:

- Helped establish an enabling and sustainable framework for private power projects.

- Helped mobilize funds for the completion of the Project.

- Helped mobilize long term finance substantially beyond prevailing market terms for the country.

For more information on the Amman East Power Project, please contact:

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Amman East Power – IBRD Guarantee Structure