

JBIC Signs ODA Loan Agreement with Armenia

--Constructing a Gas-Fired Combined Cycle Thermal Power Plant to Help Enhance Foundation for the Country's Economic Growth--

1. Japan Bank for International Cooperation (JBIC; Governor: Kyosuke Shinozawa) signed on March 29, in Yerevan, the capital of Armenia, a loan agreement totaling 15.918 billion yen with the Government of Armenia for the Yerevan Combined Cycle Co-generation Power Plant Project.
2. The proceeds of this loan will finance the procurement of machinery and equipment, construction and civil works and consulting services that are necessary for constructing a gas-fired combined cycle thermal power plant (205MW class) in the land adjacent to the Yerevan Thermal Power Plant on the southern outskirts of Yerevan. The Project is aimed at enhancing the power supply capacity of Armenia, thereby easing possible power shortages in the future and serving to develop the foundation supporting the economic growth of the country.
3. In Armenia, many of the power plants, including Yerevan Thermal Power Plant, were constructed during the Soviet era and have been operational for 30 years or longer. Due to wear and tear, their power supply capacity and reliability have considerably deteriorated. Whereas national peak demand stands at 1,177MW, the current supply capacity is only 1,266MW. Considering the need to secure a reserve margin and to meet the growing power demand expected in the coming years (peak demand is projected to reach 1,350MW in 2008), there is concern that Armenia will face a serious power shortage in the future. In the meantime, about 50% of the power demand is accounted by the capital city of Yerevan, the country's economic and industrial hub and home to one third of the population, or some 1.1 million people. The construction of a gas-fired power plant, which takes a relatively shorter period of time, in the vicinity of Yerevan, the city of greatest demand, is thus highly and urgently called for. Under the Project, the combined-cycle technology^[1], which is highly effective in power generation, is adopted for the first time in Armenia. Aside from that, the newly constructed plant will serve as a co-generation plant that supplies heat to neighboring factories and residences. The Project will thus support the country's efforts to decrease fuel consumption in a bid to save energy and conserve resources, and to reduce air pollutants to alleviate environmental burdens.
4. The Caucasus region^[2] including Armenia occupies a geographically significant position: it lies not only in the corridor linking Europe and Central Asia, but also has a strategic location connecting Russia and the Middle East. Supporting the enhancement of the basis for economic growth in Armenia has great importance for securing stability in the neighboring region. Economic and social infrastructures in Armenia were mostly constructed during the Soviet era and have severely deteriorated. In particular, infrastructure development in the power sector is one of the priority development agenda. JBIC provided an ODA loan to Armenia in 1999, which was intended to support the rehabilitation and expansion of power transmission and distribution facilities across the nation. By extending this second ODA loan to support the power sector which plays a significant role in improving the foundation for economic growth, on which will rest the country's transition to a market-oriented economy, JBIC will help the Armenian economy get on the stable path toward growth.

(Click [here](#) for details.)

[1] Combined cycle power generation increases thermal efficiency by combining gas turbine power generation, whereby natural gas is combusted and gas expansive power is used to drive a turbine, with steam power generation, whereby the emitted gas is recovered and used to drive a turbine.

[2] Comprises three countries: Azerbaijan, Armenia and Georgia.

1. Loan Amount and Terms

Project Name	Amount (Mil. Yen)	Interest Rate (% per annum)	Repayment Period/ Grace Period(Years)	Procurement
Yerevan Combined Cycle Co-generation Power Plant Project	15,918**	0.75*	40/10	General Untied

*Preferential term

**This amount was increased by 10,491 million yen to 26,409 million yen in fiscal 2008

2. Political and Economic Profile of Armenia

(1) Political situation

Located in the Caucasus region, Armenia is an landlocked country with a population of 3.21 million (2003). It gained independence from the former Soviet Union in September 1991. President Kocharian was first elected in March 1998 and then re-elected in 2003. In the general election held in May 2003, the ruling party won the largest number of seats, thereby ensuring a relatively stable political situation.

(2) Economic situation

Poor in natural resources, Armenia relies on imports for almost all its primary energy sources. In addition to the already advanced machinery, chemicals and electronics sectors during the Soviet era, the country has in recent years been fostering its export industry, including precious metals and jewelry processing, as well as its IT industry. These industries and other manufacturing businesses account for one fifth of the country's gross domestic product (GDP), while agriculture occupies some 25%. Real GDP grew by over 13% in 2002 and 2003 respectively, a testimony to Armenia's continued robust economic development. Having accepted the IMF's Article VIII obligations in June 1997, Armenia has been pushing forward economic reforms with the aim of becoming a market-oriented economy.

3. Outline of the Project

-All-inclusive construction of combined-cycle co-generation thermal power plant (fueled by natural gas-fire, 205MW supply capacity and 103Gcal/h heat supply)

-Rehabilitation of existing facilities (a cooling tower, outdoor switchyard, water treatment facilities and heat supplying facilities)

-Consulting services (detailed design, procurement assistance, construction supervision, and technology transfer/human resource development concerning operation and maintenance of facilities)

Since combined cycle power generation is a technology that is being introduced to Armenia for the first time, training programs will be drafted and implemented through consulting services, as a part of efforts to improve the operation and maintenance capacity of the power plant.

The executing agency for the project is Yerevan Thermal Power Plant, Closed Joint Stock Company (Address: 3 Arin-Berd St. Impasse 3, Yerevan, 375053 Republic of Armenia Tel: +374-1-472-760; Fax: +374-1-472-771)