

MARITZA EAST 1 CASE STUDY

WORLD BANK GROUP MULTILATERAL INVESTMENT GUARANTEE AGENCY

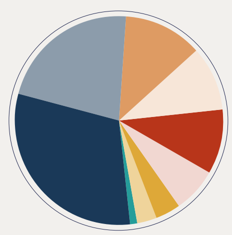
Power Case Study: Maritza East 1, Bulgaria

In Bulgaria, MIGA has issued €99 million in guarantees for the construction of a new power plant. The guarantees cover €89 million in loans and interest on loans syndicated by Calyon of France, and a €10 million equity investment by AES Bulgaria Holdings BV, a wholly owned subsidiary of the US-based AES Corporation. The guarantees are for 16 years and cover the risks of expropriation and war and civil disturbance. MIGA's involvement played an important role in the project's ability to mobilize long-term commercial bank funding.

MIGA's Power Portfolio

Since 1990, MIGA has issued $3.6 billion in guarantees for 65 power projects in all regions of the world. The power portfolio currently stands at $1.3 billion, accounting for 22 percent of MIGA's outstanding gross portfolio.

Outstanding Guarantees Issued by Sector (%)



- 31% Financial
- 22% Power
- 12% Transportation
- 10% Oil, gas, and mining
- 10% Agribusiness, manufacturing, and construction
- 7% Telecommunications
- 4% Tourism and services
- 3% Water/wastewater
- 1% Waste management

All figures are as of February 2008

The private project company, AES-3C Maritza East 1 EOOD, will finance, build, own, and operate a 600 MW (net) lignite-fired power plant adjacent to the existing Maritza East 1 (ME1) power plant site in the municipality of Galabovo, about 270 km southeast of Sofia. The nearby Maritza East mines will supply the lignite under a 15-year fuel supply agreement. ME1 will replace the old 500 MW Maritza East plant that has been phased out and dismantled.

Bulgaria is a country with limited energy resources and its power sector is reliant on aging thermal and nuclear capacity for its base-load and shoulder-load requirements. As part of its steady progress toward EU accession, Bulgaria has been reforming its power sector and is working to urgently replace capacity that is inefficient, highly polluting, and often in violation of EU environmental requirements. Private sector-led generation projects such as Maritza East 1—one of the country's first privately owned generation project—are an integral part of the country's energy sector reform.

The new plant, a base-load facility, will connect to the Bulgarian power grid for distribution throughout the country. This environmentally compliant, efficient, state-of-the art facility will support future demand for electricity as the nation's economy grows. The plant is expected to be operational in 2009.

MIGA, a member of the World Bank Group, mitigates noncommercial risks by insuring investments against the risks of:

- Currency inconvertibility and transfer restrictions
- Expropriation
- War, civil disturbance, terrorism, and sabotage
- Breach of contract

MIGA provides dispute resolution services for guaranteed investments to prevent disputes from escalating.

MIGA also provides free online information on investment opportunities.

Contract Structure

The ME1 concession was awarded to AES through an international tender in 2000. The plant was originally expected to be commissioned by 2004, but following completion of the initial design stage, the project was delayed due to difficulties in raising adequate financing. In 2004, AES resumed its efforts to develop ME1.

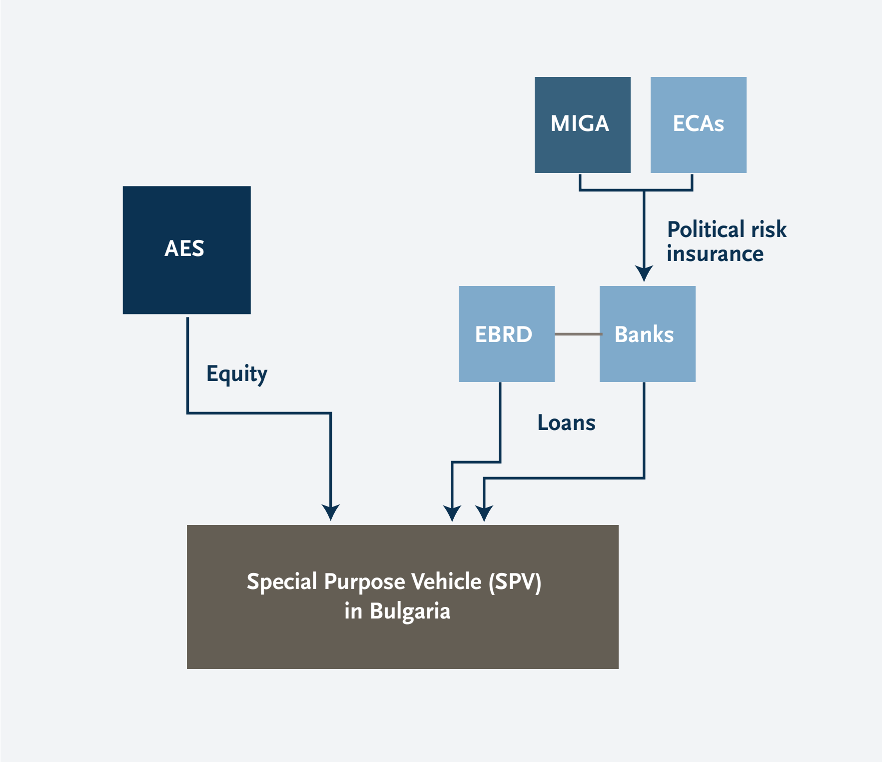
Total project cost is projected at €1.09 billion, of which the turnkey engineering, procurement, and construction contract is €723 million. In addition to MIGA, guarantee coverage was provided by Coface and Hermes. Lead arrangers were BNP Paribas, Calyon, and ING. The multilateral debt providers were the European Bank for Reconstruction and Development and the Black Sea Trade and Development Bank.

The project involves four separate contracts relating to power purchase, coal supply, construction, and operation and management. Contract specifics include:

- The project will sell electricity to Natsionalna Elektricheska Kompania EAD (NEK), the state-owned utility, under a 15-year power purchase agreement (PPA). NEK's obligations under this agreement are on a take-or-pay basis. The tariff payable by NEK is based on a formula stipulated in the PPA and is comprised mainly of a fixed capacity payment in Euros, as well as a fixed operation and maintenance rate, both of which escalate annually.

- The project will use lignite coal extracted from the Maritza East mines near the project site under a 15-year lignite supply agreement with Mini Maritza Iztok Mines, a state-owned company that generates the vast majority of Bulgarian coal.

MARITZA Contract Structure



- The design, construction, demonstration, testing, and commissioning of the project will be conducted by subsidiaries of Alstom Power under an engineering, construction, and procurement agreement. The project is to be completed on a turnkey basis for a fixed price on or prior to an agreed date and at an agreed level of performance.

- The project will be operated and maintained under an agreement with an affiliated company of AES, AES Martiza East 1 Services, Ltd.

Risk Mitigation

The project was developed through a project finance structure with the debt-to-equity ratio of 30/70. One particular concern for the investor was related to the need to obtain more than $750 million in debt financing in a sector that was still undergoing transformation.

The power sector in Bulgaria has been fundamentally overhauled. The legal and regulatory framework has been improved through the enactment of the Energy Law in 2003, consistent with EU energy directives. Electricity distribution and generation companies were spun off from the former monopoly electricity company, NEK, and the distribution sector has been completely privatized. At the time of contract signing, these reforms were expected to continue. NEK was expected to be restructured by unbundling it into a wholesale power supplier, a hydro generator company, and a transmission company, and the market was expected to be fully liberalized. Uncertainties associated with the proposed restructuring were the main hurdle in raising long-term financing for the project.

According to AES, MIGA's political risk guarantees were an integral part of the financing plan as they were instrumental in the decision of commercial lenders to provide long-term debt facilities. MIGA's coverage is providing assurance to the lenders that they will be compensated in the event that the investor defaults on debt payments due to a covered event.

In particular, MIGA will pay compensation to lenders should the following events occur:

- Civil disturbance or war causes physical damage to the company's assets or leads to business interruption that impacts the project's financial viability.
- Measures taken or approved by the host government that would affect the terms and conditions of the project's agreements.
- Failure of the host government to ensure that its state-owned companies to perform their obligations under the project agreements.

Development Impact

The Maritza East 1 plant will provide state-of-art, reliable and environmentally sound generation capacity to help satisfy future demand for electricity in Bulgaria. The project will replace the existing plant, which is near the end of its operational life and has already been partially decommissioned.

Among the expected development impacts are the generation of some $60 million in taxes over the 15-year PPA, in addition to local taxes. The project expects to employ up to 2,000 Bulgarian workers during the construction period. Priority will be given to local workers, whose unemployment rate is estimated to be nearly 14 percent. During operation, the project is expected to provide direct employment for up to 250 workers. In addition, the project will assure continued employment at the local Maritza East mines, which provides direct and indirect employment for roughly 8,000 workers.

In addition, the project is expected to provide job opportunities through the purchase of more than $150 million in locally sourced goods.

Last, the plant is designed to comply with EU environmental standards for lignite power plants of more than 500 MW capacity. Upgrades to the lignite handling and milling facilities will significantly reduce existing dust emissions, and the installation of modern emission control equipment and more efficient burner systems will have a strong, positive impact on local and regional air quality.

"We are very pleased with the responsiveness and support of MIGA throughout the development and financing process," said Matthew Bartley, AES Maritza East 1 Executive Director.

MIGA's Value

MIGA provides a unique umbrella of deterrence against political risks and can offer comfort to clients by improving projects' risk-return profiles.

Investment Protection and Prompt Claims Payment

- **Deterring harmful actions.** MIGA's relationship with shareholder governments provides additional leverage in protecting investments.
- **Resolving disputes**. As an honest broker, MIGA intervenes at the first sign of trouble to resolve potential investment disputes before they reach claim status, helping to maintain investments and keep revenues flowing.
- **Ensuring prompt claims payment**. If a dispute cannot be resolved, MIGA ensures that valid claims are paid promptly.

Improving Financial Terms and Conditions for Investors/Lenders

- **Accessing funding.** MIGA guarantees help investors obtain project finance from banks.
- **Lowering borrowing costs**. MIGA guaranteed loans may help reduce the cost of capital.
- **Increasing tenors**. MIGA can provide insurance coverage for up to 15 years (in some cases 20), thereby increasing the tenor of loans available to investors.
- **Helping to structure project financing**. MIGA also ensures that risks are allocated properly.

Country, Social and Environmental Expertise

- Providing extensive country knowledge. MIGA applies the World Bank Group's decades of experience, global reach, and knowledge of developing countries to each transaction.
- Offering environmental and social expertise. MIGA helps investors and lenders ensure that projects comply with what are considered to be the world's best social and environmental safeguards.

Types of Coverage Offered

Transfer restriction coverage protects against losses arising from an investor's inability to convert local currency into foreign exchange for transfer outside the host country. The coverage also insures against excessive foreign exchange delays caused by the host government's actions.

Expropriation coverage offers protection against loss of the insured investment as a result of acts by the host government that may reduce or eliminate ownership or control of the insured investment. This policy also covers partial losses and "creeping expropriation," a series of acts with an expropriatory effect.

War, civil disturbance, terrorism, and sabotage coverage protects against loss due to the destruction, disappearance, or physical damage to tangible assets caused by politically motivated violence. It also extends to events that result in the total inability of the project enterprise to conduct operations essential to its overall financial viability.

Breach of contract coverage protects against losses arising from the host government's non-payment of an arbitral award in favor of the investor, due to the government's breach or repudiation of a covered contractual agreement with the investor.

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