

## PROJECT ABSTRACT

Name of the Project:	<i>Amatitlán</i> Geothermal Project
Country:	Guatemala
Sponsor:	Ormat International Inc.
Project Cost:	Approximately US\$ 55.2 million
IDB Participation:	IDB A-Loan US\$ 22.1 million IDB B-Loan US\$ 19.3 million
Department:	Private Sector Department (PRI)
Status:	Due diligence
Date:	February 23, 2004

### I. Project Description.

The Bank has been approached by Ormat International, Inc. (the “Sponsor”) to finance a build, own and operate (“BOO”) geothermal power project with a net capacity of 20.5 MW (gross capacity of 22.5 MW) in the *Amatitlán* area in Guatemala (the “Project”). The Project comprises: (i) construction of the geothermal power plant; (ii) geothermal production and re-injection wells; (iii) gathering system (to deliver the geothermal fluids from the production wells to the generating units and back to the re-injection well); and (iv) various auxiliary systems and buildings. The plant will be based on Ormat’s proven Organic Rankine Cycle technology, where the generating system is comprised of two types of subsystems: (i) subsystem I contains back-pressure steam turbines operating on steam; and (ii) subsystem II, based on two Ormat Energy Converter (OEC) units.

The construction, operation and maintenance of the plant will be done through a series of contracts to be executed between the special purpose company incorporated by the Sponsor in Guatemala (*Ortitlán Limitada*) and different entities within the Sponsor’s group under an arms’ length basis. Construction is expected to start in the first half of 2004 and the scheduled commercial operation date is 19 months from construction start date.

The electricity generated by the Project will be sold to *Instituto Nacional de Electrificación* (“INDE”) under an internationally bid 20-year Power Purchase Agreement (“PPA”) signed between INDE and *Ortitlán Limitada*.

### II. Project Benefits

Improvement of service and coverage. The electricity generated by the Project can displace fossil fuel based electricity generated in the country and/or imported from neighboring countries, and thus reduce the country’s dependency on imports of fossil fuels and/or electricity, and on hydroelectric facilities which are vulnerable to droughts.

Increased diversity and competition in the power sector. Being a privately owned independent power plant, the Project will reduce the relative portion of generation assets held by the public company *Empresa de Generación Eléctrica de Guatemala S.A.*, the generation company of INDE, therefore increasing the diversity and competitiveness of the power sector.

Environmental benefits. Geothermal energy does not require fuel burning to produce heat or electricity. Therefore, there are very little emissions of carbon dioxide, nitrogen oxides, and sulfur dioxide.

### **III. IDB Participation**

Power plants require long construction periods and high capital costs. As such, the viability of these projects relies critically on long tenors and a financing structure typically not available from private lenders without the participation of multilateral agencies. As such, the Bank's long term financing through the A-Loan and mobilization of long-term funding from commercial banks through the B-Loan is critical to bring this type of infrastructure project to fruition.