

Signing of Japanese ODA Loan Agreement with Bolivia: Supporting the first geothermal power generation project in Bolivia toward a stable power supply

On March 24, the Japan International Cooperation Agency (JICA) signed a loan agreement with the Government of the Plurinational State of Bolivia in La Paz to provide a Japanese ODA loan of up to 61.485 billion yen for the Laguna Colorada Geothermal Power Plant Construction Project (Second Stage).

The project will meet the growing power demand, contribute to diversification of the energy matrix and mitigate the impact of climate change through the construction of a 100-megawatt geothermal power plant, transmission lines and incidental facilities in Sol de Mañana, which is located in the Department of Potosí in southwest Bolivia, thereby contributing to the economic development of the Plurinational State of Bolivia. The loan funds will be allocated to civil work such as well drilling, the construction of the geothermal power plant and incidental facilities and consulting services as second stage of the project following the Laguna Colorada Geothermal Power Plant Construction Project (Phase 1 of First Stage), for which a Japanese ODA loan was provided in July 2014.



signing ceremony

Mineral resources are actively being developed in the southwest area of Potosí Department, which is one of the foremost areas in the world for zinc, lead and silver production. Mineral resource development requires a considerable amount of electricity, which is supplied to the region by long-distance transmission lines since the power generating facilities connected to the national grid network are concentrated in the central region of the country. Therefore, if a mishap occurs to an existing transmission line, there could potentially be a major disruption to mining production activities. As approximately 20 percent of Bolivia's total export value is of mineral resources and an obstruction to mineral development would have a major impact on the economy, stabilizing the power supply is therefore a priority.

Due to the poor combustion efficiency at the high altitude and the high fuel transportation costs, constructing a thermal power station is inappropriate for the region, and there are no locations suitable for a hydroelectric power plant, so the region has no large-scale power plants. Those limitations notwithstanding, the potential for geothermal development has been confirmed in the Sol de Mañana geothermal field, and it is expected that such development would greatly contribute to the stable power supply, which is a long-standing development issue in the region which has no main power supply.

Seventy percent of the power supply in Bolivia is from thermal power generated using natural gas produced in the country. The geothermal power plant to be constructed in this project will be the first plant in Bolivia, therefore JICA has been providing technical assistance since 2010 for the purpose of promoting understanding and capacity building for the geothermal power plant and ensuring the smooth implementation of the project through the dispatch of experts. JICA will continue technical cooperation, such as organizational capacity building, toward successful completion of the project.

1. Terms and Amount of Loan

Project title	Amount (million yen)	Annual interest rate (%)		Repayment period (years)	Grace period (years)	Procurement
		Project	Consulting services			
Laguna Colorada Geothermal Power Plant Construction Project (Second Stage)	61,485	0.3	0.01	40	10	General untied

2. Executing Agency

Empresa Nacional de Electricidad
Address: Calle Colombia No. 0 - 0655, Cochabamba, Bolivia
Phone: +591-4-4520317, fax: +591-4-4520318

3. Planned Implementation Schedule

- (1) Completion of project: November 2023 – when the facilities are put into service
- (2) Issuing of letters of invitation for consulting services (including basic design):
July 2017
- (3) Tender announcement of initial procurement package for international competitive bidding on project construction:
Procurement package title: Well Drilling
Planned release date: April 2017