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Environmental and Social Completion Sheet (ESCS)

Overview

Project Name:	LAS PAILAS GEOTHERMAL PROJECT
Project Number:	2013-0037
Country:	Costa Rica
Project Description:	The project consists of the extension of a geothermal power plant in Costa Rica.

Summary of Environmental and Social Assessment at Completion

EIB notes the following key Environmental and Social outcomes at Project Completion.

The project consisted of the expansion of electricity generating capacity at an existing geothermal power plant operational since 2011. The project comprised the construction of a new turbine hall, the installation of a 55 MW condensing steam turbine and a 26-well extension of the steam field. The project also included a steam gathering system, steam separator stations, access roads, an aqueduct and a 2.1 km 230kV overhead transmission line with substation infrastructure. It was completed in line with original design and was put in operation in September 2019.

The project is located in the Guanacaste Province of north-western Costa Rica, some 200 km northwest of the capital San José and some 50 km from the Nicaragua border.

If it was located in the EU, the project would fall under Annex II of the EIA Directive 2011/92/EC, thus implying a screening by the competent authorities determining whether an EIA Report is required or not. This project has been subject to a full EIA procedure in accordance with national legislation (*Reglamento General sobre los Procedimientos de Evaluación de Impacto Ambiental, Decreto 31849-2004*). The 2005 ESIA on the original Las Pailas power plant (commissioned in 2011) was updated for the plant extension (this project) in line with the Costa Rican national legislation and international standards, and was approved by the national competent authority in September 2012, following public consultation and the establishment of environmental monitoring and management plans.

The main environmental concern identified at appraisal was the vicinity of the project to the Rincon de la Vieja national park. The project area being located outside the park and reaching the geothermal resource through horizontal drilling at 1800-2200 m depth below the park, the project was not expected to have any negative impact to the natural park.

The project being situated in a sparsely populated area, with the nearest village at a distance of 10 kms, there was no resettlement case.

Site rehabilitation activities started in mid-2019, with no particular issues reported by the promoter on these matters.

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The project is expected to have benefited surrounding communities through local employment, the construction of an aqueduct to transport potable water and the upgrade of some existing local and regional roads with asphalt treatment, in particular on the 26 km route leading to the small town of Guayabo.

The promoter's reporting on E&S monitoring and management processes was extensively documented during the project implementation. Some notable activities part of the mitigation, conservation and prevention measures set in the adjusted 2012 ESMP, consisted of the establishment of corridors to ease the passageways to the fauna across the project site as well as the recycling of organic waste and treated domestic wastewater to fertilize and irrigate the surrounding flora. The noise, air emissions, and impacts on soil and water were properly monitored and mitigated where necessary. The extracted geothermal water is re-injected into the subsurface reservoir, ensuring the security and sustainability of the project operations.

Based on the information provided by the promoter at project completion, there were no existing adverse E&S impacts or risks, which were not already mitigated, compensated or addressed in the ESMP.

According to EIB GHG footprint calculations at completion, the project would result in 15 kton CO_2e/year emissions in a standard year of operation (based on full production allowed by design) and would contribute to the savings of -58 kton CO_2e/year, with absolute emissions higher than estimates at project appraisal as were adjusted to reflect the actual non-condensible gases and CO_2 composition of the geothermal fluid.

The project provides year-round dispatchable electricity from a renewable energy source, thus contributing to the overall reduction of GHG emissions in the country.

Summary opinion of Environmental and Social aspects at completion:

EIB is of the opinion based on reports from the promoter, site visits by the EIB team during Construction that the Project has been implemented in line with EIB Environmental and Social Standards, applicable at the time of appraisal.