Phoenix Environnement

Feasibility Study for a Solid Waste Treatment Plant

San José, Costa Rica

Consortium:	NADEO - Phoenix Environnement
Funding source:	FASEP financing
Implementation period:	Two years

Project Details

Background

Costa Rica is facing growing difficulties in waste management. As a benchmark country for sustainable development and a recent member of the OECD, Costa Rica must identify long-term, environmentally sound solutions for waste management, particularly for the capital city, San José, which is home to half of the country's population.

At the same time, Costa Rica is pursuing an ambitious decarbonisation policy. Current waste treatment technologies enable high-performance material recovery and energy recovery, including the generation of green electricity, biogas production and the production of refuse-derived fuel (RDF). This waste-to-energy facility could generate approximately 25 to 30 MW of green electricity.

Objective

To propose a technical, economic and environmental solution to address the acute issue of residual municipal solid waste and similar waste management in the San José metropolitan area (3 million inhabitants).

Contract

The contract provides for a feasibility study for solid waste treatment in the San José metropolitan area, Costa Rica.

- The first phase of the study includes the identification of the most suitable technologies in view of the current waste quantities, which are nevertheless expected to decrease as source separation schemes and the corresponding recycling streams are implemented.
- In the second phase, a detailed feasibility study is prepared to define the implementation arrangements, including the determination of design bases and the preparation of a preliminary design for a treatment facility with a capacity of 350,000 tonnes/year.
- The third phase will involve preparing tender documents for construction and future operation. A study of the appropriate contractual and financial structuring will be carried out in parallel, taking into account the scale of the project (approximately EUR 400 million).

Expected Impacts

This project will reduce the volume of waste sent to landfill and generate energy from waste, thereby reducing the country's dependence on fossil fuels as well as methane emissions from landfills.