



In southern Santiago de Chile, the landfill site Santa Marta extracts landfill gas to produce renewable energy. As a result the project prevents the atmospheric dispersion of over 348,000 tons of CO₂ every year.

Local situation:

The landfill site Santa Marta, one of the most important landfills in Santiago de Chile, serves a population of around 1.2 Million inhabitants corresponding to the southern communes of Santiago. Landfill sites are emitting a big amount of landfill gas (Methane and Carbon), which is why those waste deposits cause a bad impact on local society and environment. In a metropolitan area like Santiago de Chile, where the air quality is poor anyways, landfill gas makes it even worse.

Climate Protection Technology:

The Landfill site Santa Marta in southern Santiago extracts and uses Methane to produce renewable and clean energy. The Landfill gas collection system uses state of the art gas collection technology. This comprises vertical wells to extract the gas and gas headers designed as a looping system in order to allow a partial or total loss of header function in one direction without losing gas system functionality. The vertical wells are connected to the gas collection system, which consists of interconnected pipes throughout the landfill. This system then delivers the gas to a central flaring device, where it is flared. The produced renewable energy is used to run the landfill as well as to deliver clean energy to the national grid. Besides the fact, that the project technology produces renewable energy instead of using fossil fuel, the Methane, which has a 21 fold greater impact on the environment than Carbon Dioxide, is converted throughout the process into Carbon. So, the positive climate effect works in two ways.

Sustainable Development:

In addition to the positive effect on the climate, the project contributes several advantages to the local sustainable development. The main social and environmental impacts of this project will be a positive effect on health and amenity in the local area. Air quality and security will improve. The project will also have a small, but positive impact on employment in the local area as a number of operators will be recruited to manage the landfill gas operations. The project is helping the host country to fulfil its goal of promoting sustainable development.

Portfolio

Biomass

Carbon standard

Gold Standard

Climate Security & Sustainable Development

Emission reduction

348,323 t CO₂e p.a.

Project status

VER, certified (GS 3976)

Location

Santiago de Chile, Chile

Project validation

TÜV Süd

Sustainable Development Goals

