

PROJECT DESIGN DOCUMENT FORM (CDM PDD) - Version 03



SECTION A. General description of project activity

A.1. Title of the project activity:

CGR Guatapara Landfill Project Version 5 03/04/2012

CDM - Executive Board

A.2. **Description of the project activity:**

The proposed project activity has the objective of capture and flare the biogas produced in the "Centro de Gerenciamento de Resíduos (CGR) de Guatapará", located in the municipal district of same name in the State of São Paulo, Brazil. The project activity includes two phases. The first phase aims to only capture and flare the LFG and the second phase will install a power generation facility that will use LFG to generate electricity. The installed capacity is expected change during the project lifetime.

The first phase of the project aims to replace the existing passive venting system with an active gas collection and flaring system. This will require an investment in a very efficient collection and flaring system, thus reducing the odour, safety destructing this flammable gas and reducing the adverse environmental impacts.

During the second phase, the project will install generators that will combust the LFG to produce electricity, using part of it for self consumption and part will be exported to the grid. The flare will be kept in operation, due to LFG excess or periods when electricity is not produced or other operational reasons. The LFG power plant is expected to have around 5.5 MW installed capacity once it is completely installed, but actual equipment to be installed may vary according to the equipment available in the market at the time of actual implementation of phase 2 of the Project.

The LFG collection system will consist of a grid collection system, centrifugal blower(s), and all other supporting mechanical and electrical subsystems and appurtenances necessary to collect the LFG. The power generation facility will be comprised of LFG engine generator sets of high performance standards. The engine-generator sets will be the primary equipment to combust the collected LFG once they are installed. A fraction of the collected LFG will be diverted to flares, which will be used to combust any gas in excess of the fuel demand for the engines, as well as a contingency backup.

The landfill began its operation on 01 August 2007, receiving up to 3,500 tonnes per day of household. commercial and industrial waste (Class II-A and II-B), according to License of Operation 52000232 valid up to 22/03/14. There is the possibility of increasing the waste disposal area, however this possibility will be analyzed in the future.

Contribution of the Project Activity to Sustainable Development:

With the implementation of the project activity, besides the emissions of greenhouse gases (CH₄) reduction there will also be contribution for the sustainable development through the improvement of the local environmental conditions (as for instance, the destruction of volatile compositions). During the operational phase, which will take place 24 hours/day, 7 days/week, there will be new jobs created locally for duties related to operations and maintenance, landscaping, plumbing, monitoring and security personnel. These people will be fully trained by CGR Guatapara on their duties and tasks.