

TGF Project Profile : Lapes Landfill Gas Utilisation Project, Lithuania

The Project Activity

The Lapes Landfill Gas Utilisation project, is a Joint Implementation project developed between Lithuania and the investor countries and companies of the Baltic Sea Region Testing Ground Facility (Iceland, Norway, Sweden, Denmark, Finland and Germany, DONG Natargas, Fortum, Kymppivoima, Kerevan Energia, Gasum, Vapo and Vattenfall). The JI project was procured by NEFCO on behalf of TGF (in its capacity as Fund Manager to the Facility). The project developer and owner is the privately owned company, UAB Ekoresursai.

The objective of the investment is to use landfill gas (biogas) extracted from the Lapes landfill site, located near the city of Kaunas, for heat and power cogeneration.

Technology

The project developer will construct a landfill gas extraction system at the landfill, including extraction, gas cleaning, pumping and flaring components. A combined heat and power (CHP) plant with an electrical capacity of 1.1 MWe and heat capacity of 1.4 MWth will be installed. A 12 km pipeline connection will be made between the landfill and the CHP unit. Natural gas will be used as a support fuel in the engine. The flaring system will be used when the engine is not running and for safety reasons.

Although a conventional technology with widespread application throughout the world, this project will be the first of its kind in Lithuania. Technology risks are low.

Nature of Emission Reductions

The Lapes landfill gas utilisation project will generate emission reductions through the destruction of methane emissions from the landfill and the displacement of CO₂ from heat and electricity production.

The project baseline takes into account the impact of the implementation of EU landfill directive in Lithuania.

The investment project will result in an emission reduction of AAUs 21,000 and ERUs 167,000 tCO₂e. The emission reductions are purchased by the TGF.

The project uses the Approved Consolidated Methodology of the CDM for landfill gas project activities, ACM0001, and has received a determination report from TÜV SÜD.. For a full explanation of the methodology used please refer to the Project Design Document. Both documents are available at www.nefco.org/tgf

Contribution of Carbon Finance

The total investment costs of the project are estimated at ca. EUR 3 million. Financing is based on own capital resources, bank loan and sales of CO₂ reduction units.

Carbon finance was integral to the financing of the project given the insufficient financial return and level of uncertainties relating to tariffs. The project also needed an up-front payment to achieve financial closure.

Carbon finance contributed over 40% of the capital invested.

For Further Information

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For General Information on the TGF, visit <http://www.nefco.org/tgf>