



Wollert Landfill Gas Project

Project Details

Project proponent:
LMS Energy Pty Ltd

Methodology:
Capture and Combustion of Methane
in Landfill Gas from Legacy Waste

Project status:
Registered and subsequently issued
85,488 ACCUs

Location:
Wollert, Victoria



WASTE



LANDFILL
GAS

The Wollert Landfill Gas Project is located in Wollert, Victoria on the northern fringes of Melbourne. The facility is owned and operated by LMS in co-operation with Hanson Landfill Services. The facility was commissioned in 2006 under the NSW Greenhouse Gas Reduction Scheme (GGAS) and consists of 6 x 1.1MW engines. The gas extraction system comprises approximately 155 gas wells, utilising over 12,500 metres of pipe. This system is maintained under vacuum to ensure the gas is extracted at the same rate it is produced. Over 145 million cubic metres of landfill gas has been collected and combusted since the facility began operation.

At the time of the CFI's introduction in 2011, LMS actively engaged with all levels of government to understand the opportunities in the evolving carbon market as well as the associated risks. LMS assisted in the development of the methodology which guides carbon credit creation for landfill gas projects. Complex issues such as additionality, setting of baselines, monitoring, verification and ACCU issuance are all managed by LMS as the landfill gas facility is taken through the CFI project lifecycle.

In addition to the emissions reductions, the landfill gas project has other co-benefits, including renewable energy generation and millions of litres of water saved in comparison to typical wet-cooled, coal-fired power stations.

Challenges and Learnings

The challenges and learnings the Wollert Landfill Gas Project faces includes:

- Uncertain regulatory environment which includes:
 - The possible change to the ACCU market
 - Change in the operation of the Renewable Energy Target (RET)
 - Renegotiation of electricity prices when the carbon price is repealed
- Significant upfront and continued capital expenditure



Stakeholders Involved

In undertaking the Wollert Landfill Gas Project, LMS engaged with a number of stakeholders including:

- Hanson Landfill Services, the operator of the Wollert Landfill
- The Clean Energy Regulator which administers the CFI scheme
- Auditors for third party verification of the project

Business Case

LMS is a leading carbon abatement and renewable energy company which has pioneered the collection and conversion of landfill gas-to-energy in Australia. Landfill gas is approximately 50% methane (CH₄), a harmful greenhouse gas which has a global warming potential twenty-one times that of carbon dioxide. By destroying and reprocessing landfill gas, LMS reduces greenhouse gas emissions and provides a local renewable energy source for the community.

Commissioned in 2006 under GGAS, the Wollert Landfill Gas Project was registered as a CFI project in 2012 as a replacement for its GGAS accreditation. At the time of writing, this project had been issued with 85,488 ACCUs.

LMS works with Hanson Landfill Services, the operator of the Wollert Landfill, to help realise the potential opportunities and minimise the risks that carbon markets can create. Maximising opportunities and minimising risks relies on the amount of landfill gas captured, combined with the high availability of generators and flares to combust the gas. The LMS landfill gas capture system ensures the revenue stream from ACCUs is maximised, providing Hanson Landfill Services with enhanced environmental and financial outcomes. The additional renewable electricity generated by these high efficiencies further enhances the project's financial viability.



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