



Repurposing harmful biogas from a landfill closed for decades

Simply because a landfill closes and the trucks carrying new waste stop arriving, doesn't mean the buried waste stops affecting the environment. For decades waste still moves through the natural process of decomposition, continuing to produce harmful methane, as it would if the landfill were still open.

Even after 20 years since it received waste, the Willawong

landfill in Brisbane produces enough biogas to fuel a power station. Instead of allowing this harmful waste gas to enter the atmosphere, working alongside Brisbane City Council, LGI built and operates a biogas-to-renewable power project.

Commissioned in 2011 as a 1MW station, the generator was replaced in 2019 with an optimally sized 600kW unit – to match reduced biogas volumes from the closed landfill.

Here are the stats so far*



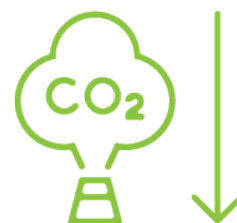
Biogas Captured m3
49 million



Energy generated since August 2012
56 GWh



Australian Carbon Credit Units (ACCU) created
400 thousand



Emissions (t CO2e) reduced by
465 thousand tonnes

That's the emissions (t CO2e) reduction equivalent of planting 7.7 million seedlings over the next 10 years!

LGI captures biogas from landfills and converts it to carbon dioxide, which is 28 times less harmful to the environment in terms of greenhouse gas emissions. This is an important and proven emissions reduction solution for closed landfills.

With over 1,000 landfills operating across Australia - open and closed. It is critical that more of these benefit from active biogas extraction systems, as we continue to find clean solutions to the environmental problems created by our modern society.



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* Results Achieved to March 2023



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We've achieved far-reaching benefits from the carbon abatement and renewable energy achieved at this landfill, which will lead to further improved outcomes for the future.

- ✓ Improves air quality
- ✓ Reduces greenhouse gas emissions
- ✓ Contributes to the local economy
- ✓ Support best practice landfill operations
- ✓ Reduces landfill odors
- ✓ Provides renewable energy
- ✓ Stabilises the local electricity system
- ✓ 56 GWh of renewable energy since August 2012



"The biogas from this old tip still produces enough energy to power 950 homes. Being responsive and available 24/7 it also makes the local power supply more reliable."

- Adam Bloomer, Founder and CEO

People engineering, a clean energy, zero carbon future