Turning methane into energy gold

Saving the planet, one landfill at a time by achieving these results*

Biogas Captured m3
7.3 million

Renewable power generation installed
1GWh

Australian Carbon Credit Units (ACCUs) created
34 thousand

Emissions (t CO2e) reduced by
69 thousand tonnes

That's the carbon abatement equivalent of 1.2 million seedlings planted for 10 years!

What if we could turn our landfills into producers of renewable, clean energy – if our non-recyclable and non-reusable rubbish were a resource that had a second life?

That's exactly what we have done in collaboration with the **Toowoomba Regional Council**, turning the Toowoomba Waste Management Centre into a clean energy superpower in the fight against climate change.

LGI's new renewable energy project at the Toowoomba Waste Management Centre is the first in Queensland to convert methane from a landfill into electricity to power a Council's waste water treatment plant. The Wetalla Water Reclamation Facility, Council's most demanding energy user will now be mostly (90-100%) supplied with renewable power fuelled by waste gas the tip.

Combining waste management with clean energy production has turned the Hermitage Road landfill into a fully supported, productive asset. Surplus energy generated by the clean energy power station can also be fed into the National Electricity Grid while we simultaneously take care of biogas management, harmful gas destruction, odour reduction and ensuring environmental sustainability for a better future.

Landfills still form part of the waste management system in our communities. Over 1,000 operate in Australia today. However, a secret to achieving a greener future lies in these landfills!

Effective extraction and flaring of biogas from landfills can abate carbon and also turn some landfills into clean energy generators - fighting climate change right where it begins.



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* Results Achieved to October 2024

LGI

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TOOWOOMBA REGION

- ✓ Improves air quality
- ✓ Massively reduces greenhouse gas emissions
- ✓ Contributes to the local economy
- ✓ Provides reliable (24/7) renewable energy
- ✓ Reduces carbon intensity of the grid
- ✓ Reduces the cost of electricity
- ✓ Increases local electricity system reliability
- ✓ Stimulates future development opportunities
- ✓ Contributes to best practice landfill management



The wastewater treatment plant is our biggest user of electricity in the region for our council, so this is a real win-win for us.

- Nancy Sommerfield, Toowoomba Councilor

People engineering, a clean energy, zero carbon future

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