

# Turning methane into energy gold

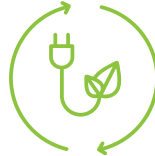
Saving the planet, one landfill at a time by achieving these results\*



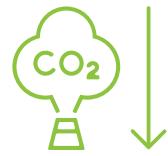
Biogas Captured m3  
**25.3 million**



Renewable Energy  
**17 GWh generated**



Australian Carbon Credit Units (ACCUs) created  
**121 thousand**



Emissions (t CO2e) reduced by  
**241 thousand tonnes**

**That's the carbon abatement equivalent of 4 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.



Waste Water Treatment Plant

LGI's Biogas to Renewable Energy Project

Toowoomba Landfill Site



**CLEAN ENERGY & CARBON ABATEMENT**

[www.lgi.com.au](http://www.lgi.com.au) | Ph 07 3711 2225

\* Results Achieved to October 2024





**TOOWOOMBA  
REGION**



2024 IPWEA-QNT  
Excellence Awards

Winner of  
**Innovation and  
Sustainability  
in Water**

**Public Works  
Project Of  
The Year**

- ✓ 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



**Council's Wetalla Water  
Reclamation Facility**

**LGI's Biogas  
to Renewable  
Energy Project**



*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 Councillor**



**People engineering, a clean  
energy, zero carbon future**