

BIOGAS UPGRADING

with

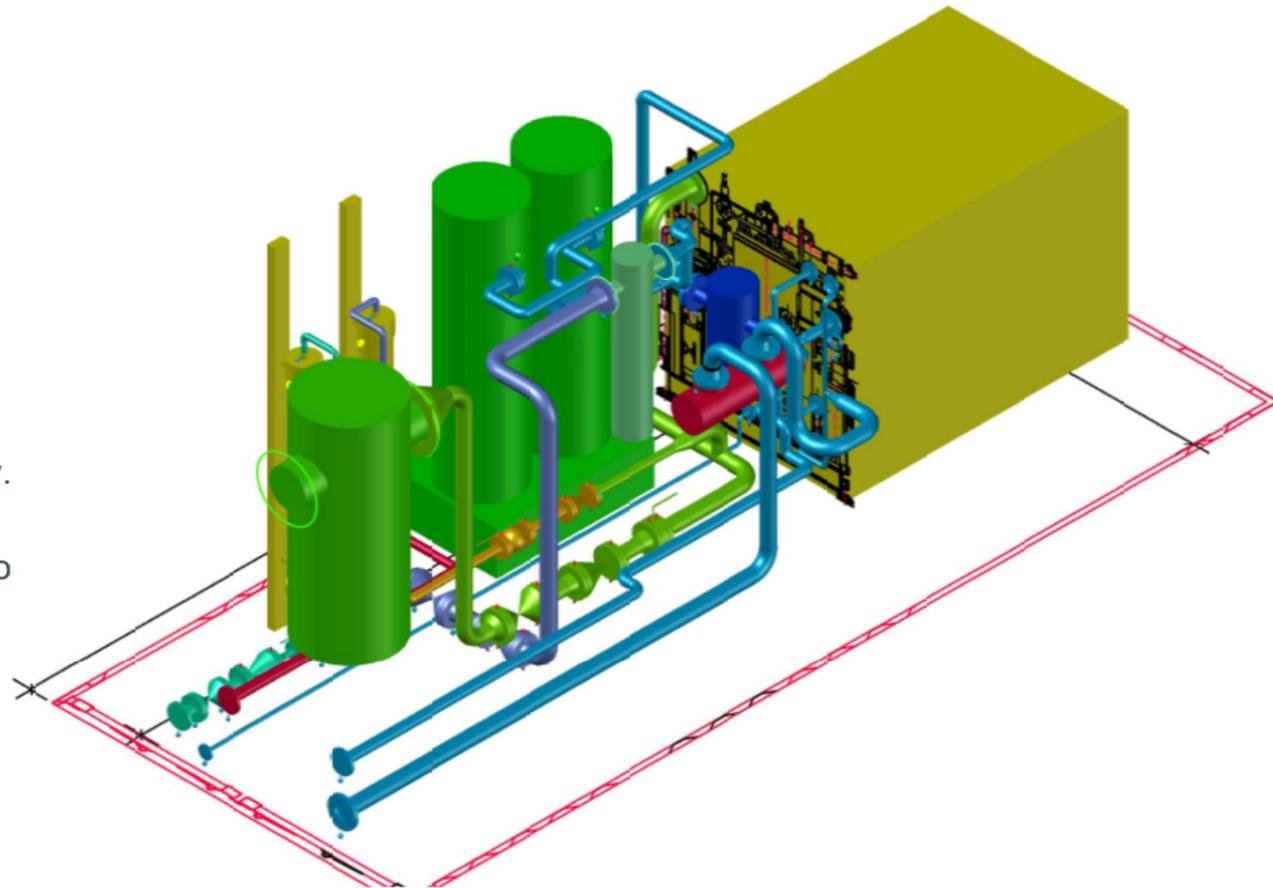
MEMBRANE TECHNOLOGY

Membrane technology has brought about a paradigm shift to the biogas industry.

This process increases the amount of methane from approximately 50 percent to 97% or better

Environmentally friendly and more energy efficient than other available technologies

Upgraded biogas can be directly injected into natural gas grids or compressed into BIO-CNG for transport and vehicle fuel.



NEW ZEALAND

89 Colombo St

Frankton

Hamilton 3204

Technology at work for you

Value adding to your revenue stream and providing real environmental benefits

BPO SOLUTION

BPO is the Best Practical Option in environmental technology and waste water management. BPO has a solutions based approach that is innovative and practical, providing exceptional outcomes and peace of mind for the client. Whether internationally or in our home country of New Zealand we are setting standards in biogas. "Made in Aotearoa" stands for quality and sustainability, both in the planning, construction and operation of biogas plants and in the development of efficient biogas technology.

TECHNOLOGY

When passing through the Evonik membranes various gases exhibit a range of diffusion speeds and solubility profiles. Carbon dioxide molecules are smaller than methane molecules, have good solubility in polymers and therefore pass through micropore membranes more rapidly. While most carbon dioxide and water passes through the molecular sieve, valuable methane collects on the high pressure side of the membrane. Due to high selectivity, the Evonik membranes are especially suited to the separation of carbon dioxide and methane.

QUALITY

BPO gas upgrading is technologically advanced and robust whilst also being compact and space saving.. The modular design is adapted to conform to international gas safety standards and performance specifications. The system is also designed to provide impressively low maintenance costs. BPO always custom design solutions to suit the client's requirements. Any number of modules can be connected together, depending on plant size, with reserve capacity built into the design..

DELIVERY

Assembled at BPO's Hamilton workshop using North American and European manufactured equipment from trusted and reputable suppliers, we take pride in the quality products that we produce and export to the rest of the world. With New Zealand ingenuity and trade skills we leverage off favourable export terms to bring your business a highly competitive product. The equipment is assembled in a 20-foot container and pre-tested prior to shipment. The containerized and automated system is ready to produce bio-methane upon delivery to your site.

TECHNOLOGY BENEFITS

✓ LOWER CAPITAL COST

✓ LOW OPERATING COST

✓ LESS MAINTENANCE

✓ HIGH EFFICIENCY

✓ SIMPLE OPERATION

✓ INCREASED RELIABILITY

flexible solutions for your business needs

customized solutions to suit your particular requirements



Energy Saving

In comparison to other processes BPO technology requires much less energy which ensures its running costs are truly minimized. In addition much of the heat generated during the upgrading process can be recovered and utilized.



Automated Control

Featuring a Siemens PLC and HMI (Human Machine Interface) all of the engineering parameters for the biogas compression and treatment system can be monitored and controlled. Being fully automatic, operator involvement is only required for routine maintenance.



Carbon negative

In certain jurisdictions using Bio-CNG can reap additional benefits in terms of revenue from bio-fuel sale that will attract an additional green energy surcharge. In conjunction with offsetting fossil fuel carbon costs this can realize significant cost savings to your business.