



BioWorks™
Empowering regional communities



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BioWorks™

BioWorks™ Australia Pty Ltd is involved in the production and distribution of renewable fuels and promotes the construction of a modular integrated renewable fuel centres.

BioWorks™ Network is a wholly owned business unit of BioWorks™ Australia Pty Ltd which is currently a private company. The Company is owned by its founders, Martin Aldridge, Stuart Gunzburg and Craig Lovelady.

The need to develop renewable energy sources and infrastructure has arisen from the inevitable diminishment of petroleum based resources, expansion in demand on traditional oil supplies from growth in Asia and the global economy which contributes to the continuing upward trend in oil prices. With the impact of global warming the adoption of alternative and renewable fuels is an environmental necessity and an economically feasible alternative.

Biodiesel production is the focus of the Company's present activities as it is the simplest of all the renewable technologies, has the lowest risk in terms of end output and the most consistent returns from known production costs.

Renewable fuels can be made most efficiently where the raw materials are grown or produced. BioWorks™ plan is to support these production facilities in regional Australia and facilitate the sale of surplus fuel to the metropolitan areas, reversing the current fuel distribution cycle.

BioWorks™ is committed to empowering communities, particularly in regional areas, to manufacture their own fuel requirements. BioWorks™ aims to create a decentralised network of manufacturing capacity and supports community ownership of its systems through the BioWorks™ Network.

BioWorks™ promotes the open adoption of the manufacture of renewable fuels and biodiesel. The Company has secured a range of equipment and accessories to facilitate the manufacture of the fuel by DIY/small scale producers through to large commercial producers.





reliable and affordable
system for every day use

A clean solution for biodiesel production

Activities

BioWorks™ Network – building a network of biodiesel production facilities based around a regional decentralised production and distribution network.

Biodiesel Warehouse – supply of equipment, accessories and consumables for the manufacture of biodiesel. The basic equipment is designed and manufactured by the Company under the banner "BioMaster". More complex processing units are being purchased from Ageratec in Sweden for which the Company has agencies for the distribution and support of these processing plants.

Biodiesel Supplies – the supply of processing materials, raw oils as premixed blends or straight oils, catalysts and reaction materials. The Company will also provide a centralised facility for maximising the value from the glycerol by-product.

BioWorks™ R&D – Utilising existing contacts within tertiary institutions and industry, the Company aims to investigate areas associated with biodiesel production including the development of new sources of oil and cheaper methods of biodiesel production.

BioWorks™ Network is a regional network of renewable fuel facilities that is offered to communities looking to develop their own fuel sources, value add their own commodities and reduce their dependency on imported petroleum products.

BioWorks™ Network is a concept developed to make renewable fuels widely available throughout regional Australia and contribute to the economic revitalisation of communities. BioWorks™ promotes regional development and believes that renewable fuels should be produced where the raw materials are grown.

BioWorks™ Network:

- Provides an opportunity to retain fuel dollars in the community
- Value add local products at point of production
- Supports regional development and growth of communities
- Quality assurance and technical excellence is a fundamental strength of the "System"

As a BioWorks™ Network Member, you can start today in reducing your community's dependency on petroleum products and make the change to clean renewable energy.

The key features of the BioWorks™ System are:

- Business model development
- Standard equipment
- Factory design & construction
- Technical support
- Procurement of raw materials
- Compliance issues assistance
- Distribution of production
- Continuing research & development

Quality control is a substantial element of the system. By being part of the BioWorks™ Network the producers will be subject to and receive the benefit of continual quality control and testing of both raw material inputs and manufactured biodiesel. This will not only ensure that manufactured fuel complies with the Australian Standard but will also ensure the requirements for biodiesel rebates are met.



We offer user benefits that pay

About Biodiesel

Today's diesel engines require a clean-burning, stable fuel that performs well under a variety of different operating conditions. Biodiesel is the only accepted alternative fuel that can be used directly in any existing, unmodified diesel engine. As it has properties similar to petroleum diesel fuel, biodiesel can be blended in any ratio with petroleum diesel fuel.

Biodiesel is a clean burning methanol (mono-alkyl) ester or ethanolester based fuel made from vegetable or animal fats. It can be used in compression-ignition (diesel) engines with no modifications. Biodiesel is simple to use, biodegradable, non-toxic, carbon neutral and essentially free of sulphur and aromatics.

Biodiesel is made through a process called transesterification whereby glycerine is separated from the vegetable oil. The process leaves behind two products – biodiesel (Mono-alkyl ester) and glycerine (a by-product used in soaps and other products).

Biodiesel advantages:

- Simple to make;
- Cheaper than petroleum diesel;
- Non-toxic;
- Biodegradable: not harmful to soil or groundwater in cases of accidental spillage;
- Is a renewable fuel;
- Carbon neutral, will not contribute to the Greenhouse Effect;
- Free from sulphur;
- Lower exhaust emissions than petroleum diesel;
- Can be used neat or blended in any ratio with petroleum diesel;
- Higher lubricity than petroleum diesel which can prolong engine life;
- Higher flashpoint than petroleum diesel – safer to handle, store and transport; and
- Not classified as a hazardous substance.

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