# 

## **Fuelling a better future**

Our mission is to end reliance on fossil fuels by producing renewable diesel in ways that lower emissions, regenerate land and enhance communities using disruptive techologies and world-best commercialisation systems.

We use proven systems and tools to achieve profitable outcomes without ever compromising our ethics.

We choose to work with individuals, organisations and communities that share our vision and goals in mutually beneficial partnerships.



**30 billion litres** of diesel is consumed in Australia each year, producing almost **81 million tonnes** of carbon dioxide emissions.



#### Straight in the tank

Our biorefinery produces renewable fuels via a high-temperature pyrolysis process that produces a synthesis gas that is subsequently refined into a renewable diesel.

The renewable diesel produced in Renuleum's biorefinery can replace traditional diesel in existing vehicles without the need for blending or equipment modifications.

## **Renewable diesel refinery**

Renuleum's biorefinery uses a high-temperature pyrolysis process followed by non-catalytic distillation to convert waste and biomass to produce renewable diesel, biochar and wood vinegar.

Biomass is sourced from waste forestry residues or from specific energy crops that have the ability to restore drought-affected or contaminated land.



#### **Reducing carbon emissions**

The biorefinery is a closed system that uses renewable waste resources in a process that reduces greenhouse gas emissions by more than 100% in comparison to petroleum diesel.

In fact, the process is **carbon negative**.

### Valuable by-products

Wood vinegar and graphene-rich biochar are used in agricultural applications to enhance soils and improve nutrient uptake.

Graphene is an exceptionally strong yet elastic material that has high electrical and thermal conductivity and is making significant inroads into the advanced development of products in the electronics, aerospace, defence, construction, paint, chemicals, medical and battery storage sectors.





## 🖒 renuleum.world