

## We know what you can do with your waste

Are you a waste producer, collector or user interested in adding value to your waste?

HRL can assist in developing a tailored waste solution.

HRL delivers business solutions to its clients through a proven approach to commercialising waste to energy opportunities.

The approach includes:

- undertaking analytical evaluation of waste resources
- beneficiation of waste resources drying, briquetting and pelletising
- technology selection including bench scale and pilot testing and computer modelling
- providing expert information to support project funding and investment
- scaled project development and commercialisation.

### What sort of waste?

- MSW (Municipal Solids Waste), green waste, paper and cardboard waste and waste plastic
- Contaminated soils and hazardous wastes
- Commercial - C&I (Commercial and Industrial), C&D (Construction and Demolition) and RDF (Refuse Derived Fuel)
- Motor industry - waste tyres and shredder floc
- Minerals industry - tailings and fines, steel milling waste
- Coal industry - fly ash and coal tailings
- Agricultural - biomass, woodchips and sawdust, chicken litter, animal manure, food waste

### Why Develop a Waste Solution?

- Reduce waste disposal volumes and costs
- Optimise the use of a waste in an existing process
- Identify alternative uses for wastes
- Convert a waste or by-product into a higher value product
- Offset natural gas, LPG or electricity costs
- Convert a waste into a form that can be utilised in a downstream process
- Alleviate safety and environmental risks in storage, utilisation, and disposal of wastes



Contact HRL to see how they can assist you

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## Services we offer

- Waste sampling and characterisation, analyse, certify, ash disposal assessment
- Identify and evaluate waste solutions
- Laboratory and pilot scale process simulation and development
- Assistance with approvals, certification and trial burns
- Environmental emissions measurements and stack sampling
- Greenhouse and energy auditing and report
- Briquetting and agglomeration
- Scaled project development and implementation



Densification of waste wood products into pellets for fuel stock

## Example projects

- Thermal treatment of contaminated soils
- Converting food waste into activated carbon
- Evaluating use of RDF in cement kilns
- Converting C&D timber into hot water for heating greenhouses
- Alternative waste options study for a local council
- Natural gas replacement using waste biomass
- Dioxins and furans emissions measurements in the paper industry
- Briquetting coal tailings to produce a value-added product for export

## Case Study

### Fuel from waste

An industrial manufacturer wanted to use waste products produced from their manufacturing process as a fuel. HRL assisted with fuel characterisation of the waste material. HRL identified combustion and environmental issues that may arise in the future from the use of the material as a fuel. HRL personnel also assisted the manufacturer by participating in discussions with government environment authorities.

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#### Need more information? Go to [hrl.com.au](http://hrl.com.au)

The company's NATA Accredited Laboratories number is 561.

HRL Technology Group's ISO 9001 Quality Management is certified by BSI under certificate FS605116

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