

# Develo

Capitalising on the innovation and technical expertise of sister company GRD Minproc, Global Renewables has developed a totally sustainable solution for one of the most critical economic and environmental issues facing the world - urban waste management.



# ppment

## The Next Generation



**2008**  
World Environment  
Day Awards  
WINNER

This solution, the UR-3R Process®, continues to evolve.

Global Renewables' first UR-3R™ Urban Waste Management Facility operated at Eastern Creek, Sydney for the past 4 years, converting around 11 per cent of Sydney's urban waste into useful resources - gas for energy, organic growth media for enriching arable land and recovering glass, aluminium, steel, paper and plastic recyclables.

In 2008, GRD agreed to the sale of the Eastern Creek facility to interests associated with Emergent Capital. While the facility had been operating above design capacity, the ongoing revenue constraints, debt servicing and overly onerous contract obligations could no longer be borne by the GRD Group.

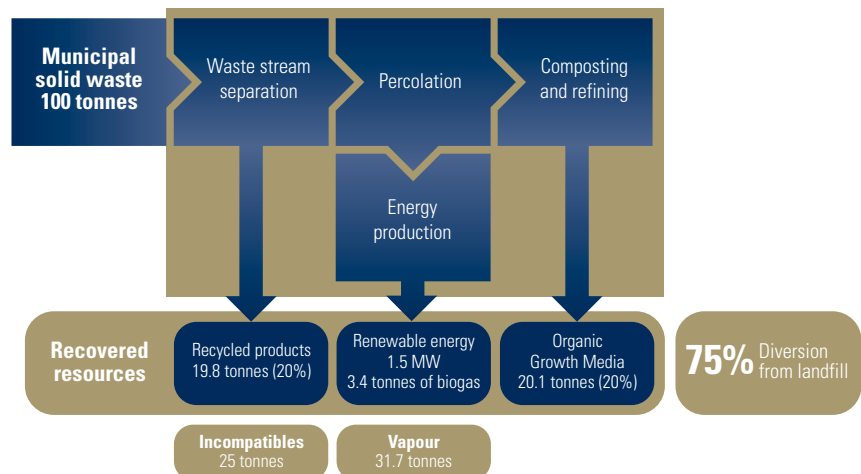
The successful and practical implementation of the UR-3R Process® at Eastern Creek in Sydney has provided the foundation for expansion into Europe and in particular the United Kingdom. The sale allows GRD to concentrate its efforts on the development of the Lancashire Waste PFI Project, which is the next generation of UR-3R™ and a different commercial proposition to Eastern Creek.

Key differences include higher processing fees, more realistic and achievable targets for diversion of waste away from landfill and better opportunities for revenue from the sale of recycled materials.

"The largest reduction in greenhouse gas emissions in 2007/08 has resulted from diverting waste from landfill to the UR-3R Waste Treatment Facility at Eastern Creek. This alone has saved almost 36.9 thousand tonnes of greenhouse gases."

*Fairfield City Council Mayor Nick Lulich, Sydney*

### The UR-3R Process®



# Lancashire Waste PFI Project



Anaerobic digesters under construction, Thornton

Development of the Lancashire Waste PFI Project, being undertaken by Global Renewables in alliance with Lend Lease Corporation, continues at pace. It is now two years since Global Renewables UK Ltd reached financial close on the revolutionary project with the Lancashire County Council and Blackpool Council.

Construction has become the prime focus and Global Renewables has adjusted its business development activities and spend in the UK accordingly. In the 24 months since contracts were signed, work has progressed significantly with the total project now more than 50 per cent complete. At the time of publication, steelwork and cladding were almost complete.

The two sites - Leyland, near Preston, and Thornton, near Blackpool - will comprise five processing plants, including two UR-3R™ facilities, and will become fully operational in 2011, following an initial 12 month ramp up period which will begin in 2010.

**Combined, the facilities will:**

- process approximately 600,000 tonnes of household waste per annum;
- produce over 127,000 tonnes of organic growth media; and
- generate more than 25,000 megawatt-hours of renewable energy.

It is also estimated that the diversion of waste from landfill will prevent at least 4 million tonnes of greenhouse gas emissions from being released over the 25 year life of the project.

The organic growth media produced by the facilities will be used for tree planting and land remediation, with Global Renewables committed to plant 2.5 million trees within the 25 year project.

Waste 2 Resources (W2R), the joint venture between GRD Minproc and Bovis Lend Lease, has already begun accepting deliveries of some of the innovative process equipment that will soon be used to receive and process waste from the participating councils.



Percolators installed at Thornton



Aerial view, Leyland



*Environmental Workshop*



*Waste minimisation education pack launch*

The progression of the Lancashire Waste PFI Project is not simply measured by on-site construction work. 2008 has also witnessed a successful inaugural year in the delivery of Global Renewables' waste education and minimisation activities. Throughout the year, 404 environmental workshops were run with more than 15,000 children from 107 schools. Once the Leyland Facility is complete, environmental workshops will be held in the new on-site Environmental Education Centre, which will include a specially adapted walkway where children can enter the waste treatment facility and safely view the waste receives area, materials recovery facility, source separation area, control room, percolation

and organic growth media composting halls; seeing first hand what will happen to their household waste.

Lancashire focused waste minimisation campaigns have also been successfully executed throughout the year targeting issues such as excess packaging, composting and food waste.

The focus for 2009 construction work is centred on completing the external and secondary steelwork, cladding, commencing construction of the Environmental Education Centre, internal building works and continued acceptance and installation of equipment.

Recruitment will also be a driving force this year with an estimated 160 positions needing to be filled before 2010.

Global Renewables is extremely encouraged by both on-site and off-site performances at Lancashire this year and is looking forward to commencing ramp up and achieving the first delivery of waste in 2010.

