



**GREEN CREATE**  
Waste-to-Value Solutions



# Green Create Case Study

## From Waste-to-Value in the Poultry Industry

The Worcester Waste-to-Value Plant is a complete offer of the poultry alliance between Green Create and Paques.



*“The solution provided by Green Create and Paques is key to our Water Roadmap at RCL FOODS.*

*Water consumption reduction and zero wastewater discharge are critical drivers for a sustainable foods business with the triple bottom line in mind.”*

Etienne Thiebaut,  
Group Sustainability  
Executive, RCL FOODS



### The challenge

- To treat and re-use fat containing wastewater from the poultry industry
- To save energy consumption at the production site
- To recover resources such as nutrients, energy and water

### The solution

- Green Create Builds, Owns and Operates Waste-to-Value Plants
- Biogas produced by the Paques BIOPAQ®AFR, the anaerobic system that converts the COD, including the fats and proteins at a relatively low retention time
- Cost effective biogas cleaning through THIOPAQ® to make it suitable for energy production

### The benefit

- Achieve high quality effluent that avoids penalties
- More than 90% COD is removed and converted into biogas, which is enough energy to power the entire specialty plant
- No odour problems
- Reliable fully automated control and operation of the waste-to-value plant

### Facts and figures

#### Company and process

- RCL FOODS is South Africa’s largest processor, marketer and seller of chicken
- RCL FOODS has a Water Roadmap with a focus on water reduction and zero wastewater
- RCL FOODS Worcester processes more than 250 thousand birds per day

#### Revitalizing resources

- Processing 3,000 m<sup>3</sup> per day of effluent from poultry waste water
- Produces more than 13,500 Nm<sup>3</sup>/biogas day
- Producing 1.6 MW of thermal energy
- Reusing 1.5 MW electricity production
- With a planned second plant, energy production will be doubled



Rainbow is a food lifestyle brand of RCL FOODS

## A complete solution for the Poultry Industry to meet the challenges of today

- Poultry producers will account for the largest share of the growth of meat consumed over the next decades as poultry is the meat of choice to feed a rising global population.
- The poultry industry faces a number of challenges from increasing populations and demands on the land, to shifting climate change and energy consumption.
- Water management, waste reduction and energy consumption are going to be the three key environmental milestones that the industry will encounter.
- Green Create, with Paques as the key technology provider, has developed complete waste-to-value solutions to help the poultry industry meet these challenges in the most sustainable manner.



## Focus on your long-term business operations while we revitalise waste into value for you

*A full solution to reduce water consumption and in the process; produce energy from waste (biogas), reduce and re-use CO<sub>2</sub> emissions, and re-use heat as energy. This is our commitment to you.*

The core technology of the plant is the anaerobic treatment, which generates biogas that can be upgraded for further use. Green Creates owns and operates specialized facilities including Paques anaerobic and aerobic technologies. Green create provides you

with a long-term BOO contract (20 years) coupled with an energy purchase and wastewater treatment agreement. The plants are operated by Green Create and supported by the global services of Paques b.v.



Info@paques.nl  
www.paques.nl

Core Technology  
Provider



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Waste-to-Value Solutions

Info@green-create.com  
www.green-create.com