

# AGRICULTURE SUCCESS STORY

## Small-Scale Anaerobic Digestion

### Jan Kempdorp, Northern Cape, South Africa

### Bio4Gas

#### OVERVIEW OF AGRICULTURE PROJECT:

An abattoir concentrating on cattle and bovine products in Jan Kempdorp, Northern Cape has a 75% production capacity and average annual energy demand of nearly 1.3 kWh. The company had an audit conducted to determine a green and economically viable proposal to improve the elimination of animal by-products. A biogas generation system was identified as a method to produce energy from the waste for electricity, heating, and cooling. The potential energy savings equal 760 MWh electricity and 1,250MWh heat per year.

**PROJECT START DATE: September 2012**

**ACTUAL ANNUAL EMISSION REDUCTIONS: 19,899 MTCO<sub>2</sub>E**

#### PROJECT DETAILS

- **Site Name:** Jan Kempdorp Abbatoir
- **Geographic Location:** Jan Kempdorp, Northern Cape, South Africa
- **Type of feed stock(s):** Abbatoir wastes
- **Installed cost:** Approximately \$1 million USD
- **Investment/Interest Costs:** Fully covered by electricity cost savings
- **Payback period:** 8 years
- **System type and components:** Small-scale AD, pre-treatment / digester / gas treatment / CHP engine

#### PROJECT HIGHLIGHTS

- Improved elimination of animal by-products
- Reduced power grid demand
- Job creation
- Corporate social responsibility
- Greenhouse gas (i.e., methane, carbon dioxide) emission reductions



#### FOR MORE INFORMATION

Thomas Dory  
Bio4Gas  
Bio4Gas Express GmbH  
Kolping Str. 26 86916 Kaufering  
Germany  
+49 (0)8191-33 111 240  
[dory@bio4gas.eu](mailto:dory@bio4gas.eu) or [kevin.monson@wyg.com](mailto:kevin.monson@wyg.com)