

# THE DEVELOPMENT OF THE BRONKHORSTSPRUIT BIOGAS PROJECT

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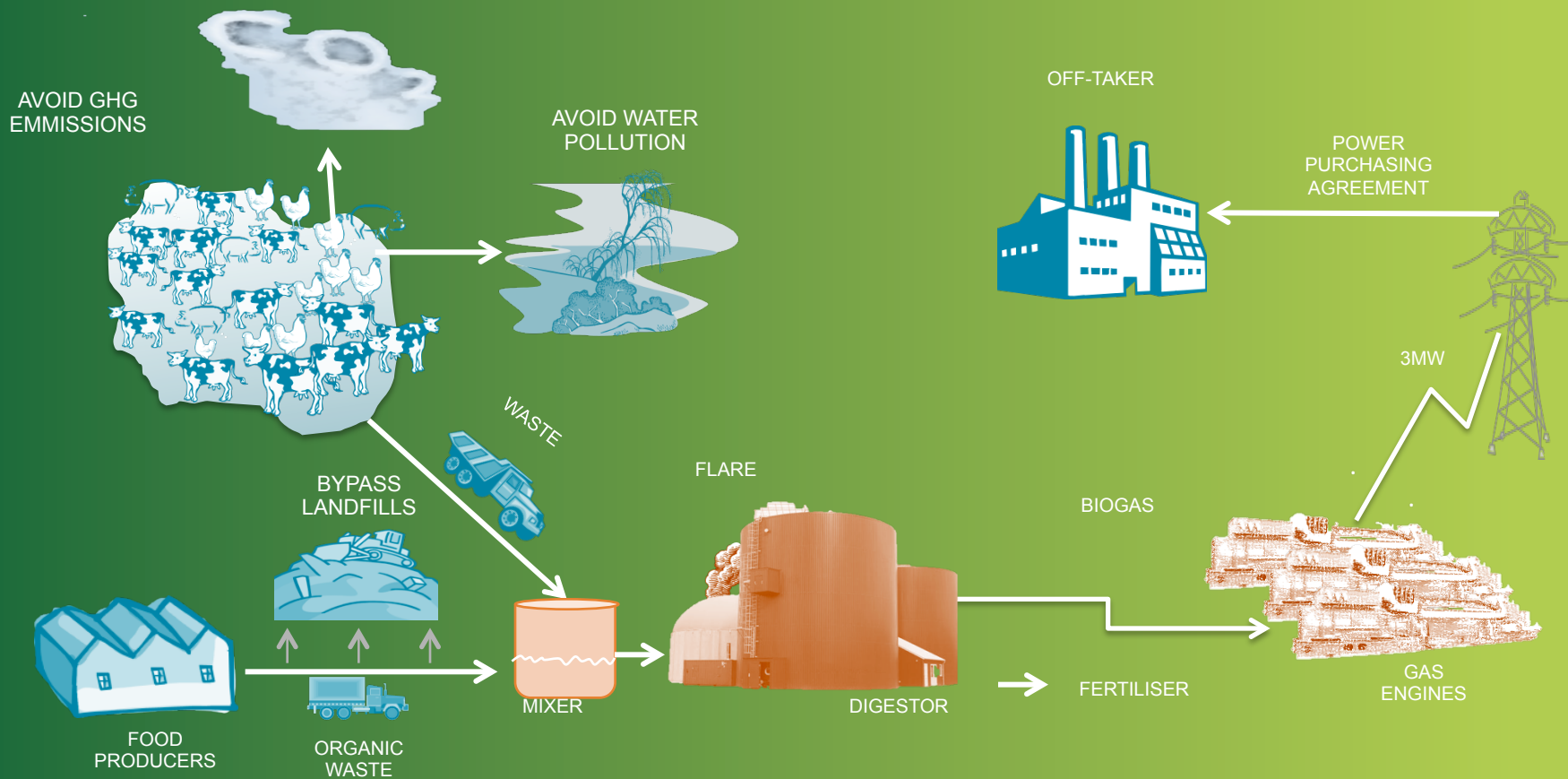
# PROJECT SUMMARY

- Bio2Watt, is a Waste to Energy Project Development Company which develops, owns and builds the projects it is involved in.

## **Bronkhorstspuit Biogas Project (Pty) Ltd (“BBP”) is a Renewable Energy IPP:**

- 4.4MW installed electrical capacity and further 3MW of heat available for beneficiation
- Electricity will be sold to BMW in Pretoria, roughly 60kms from the site.
- Total project costs amount to R150m, broken down as follows: R36m equity, R16m dti (SA govt) grant, R98m loan from the Industrial Development Corporation
- The project is structured as a limited recourse finance transaction. Equity investors include Norfund, the EPC contractor, two impact funds and Bio2Watt.
- Project will officially start evacuating power in May 2015

# THE BRONKHORSTSPRUIT BIOGAS PROJECT



BENEFITS

WASTE  
REDUCTION

JOB CREATION

MORE  
RENEWABLE  
ENERGY

DEVELOPING  
LOCAL EXPERTISE

# SOME INTERESTING FACTOIDS

**7 years**

From when project was started to  
Financial Closure March 2014

**1,500**

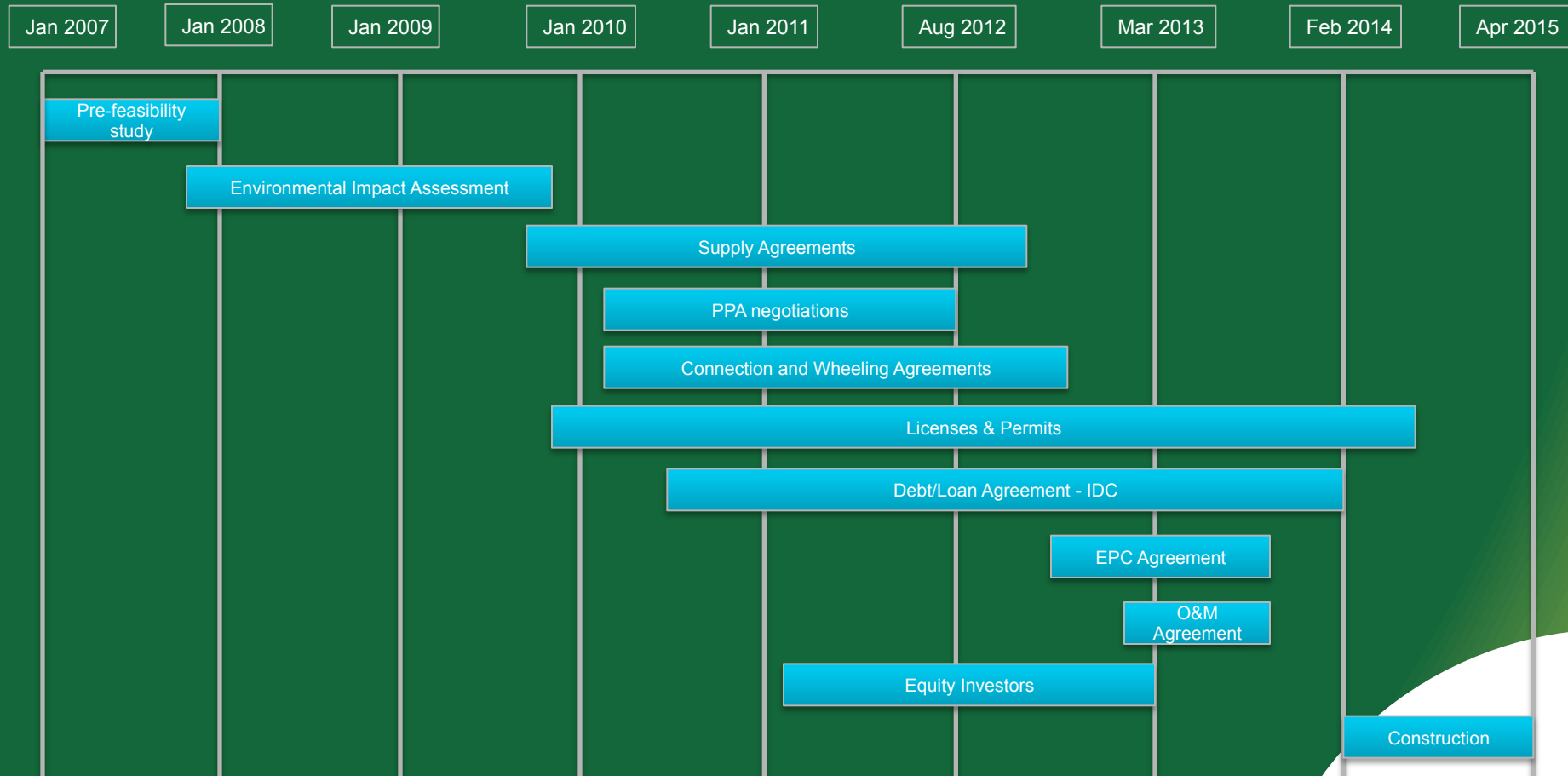
Pages of Legal documents –  
Typically agreements would lapse

**R8M**

... spent in legal fees

**10 jobs per MW**

# BBP – PROJECT TIMELINE



# How was this possible?

## Farm/Landowner:

- Buy-in & support from Farm is critical
- Extensive amount of input required e.g. banks even request access to books to ensure Farm's sustainability

## Municipality & Eskom:

- Wheeling & Connection Agreement
- Revenue Management & Billing

## Funding

- Patient investors
- Development Finance Institution providing attractive loan

## Off-taker

- Willing to pay a premium for Green Electricity

# Main Challenges

- License approval process
- High project development costs
- Wheeling of power
- Off the shelf EU technology would not have worked
- Currency movement
- Price of electricity
- Feedstock availability
- Returns are low and drawn out - requires patient investors
- Intricacies of Project Finance requirements

# Licenses required for biogas project

## **LICENSES:**

- EIA
- WULA
- Waste License
- Air Emission License
- SALA

## **MUNICIPALITIES:**

- Building Plan approval
- By Laws
- Consent of Use

## **DOE, NERSA & ESKOM:**

- Generation License
- Letter from DOE
- Access to grid

# Regulatory Challenges for IPPs

## **LICENSES:**

Shorten process Environmental Impact Assessment. All other licenses should have clear time frames within which they need to be processed – Currently Water Use License is dependent on good will of the official

## **MUNICIPALITIES:**

Provide them with clear directives for waste management and a protocol for wheeling.

## **DOE, NERSA & ESKOM:**

Industry is best supported through a strong policy framework – Removal of access to the grid to an independent broker

# BRONKHORSTSPRUIT BIOGAS PROJECT



17/03/15

Confidential

THANK YOU

