

IMPLEMENTING A BIOGAS PROJECT IN SOUTH AFRICA

Lessons Learned

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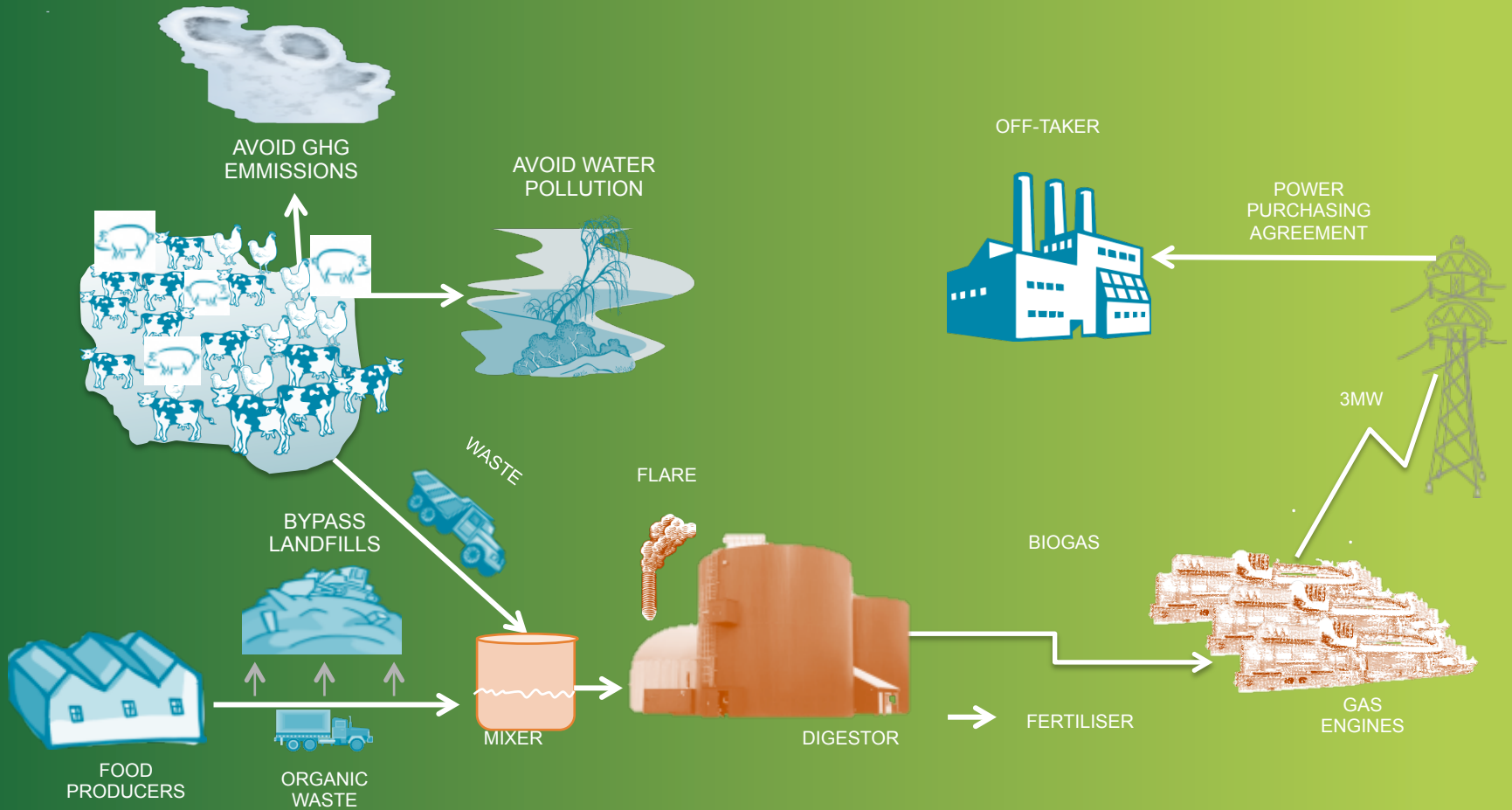
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PROJECT SUMMARY

- Bio2Watt, a Renewable Energy Project development Company, is finalising one of the 1st commercially viable biogas project wheeled in South Africa – Bronkhorstspuit Biogas Project (Pty) Ltd (“BBP”), approximately 40kms east of Pretoria on a 20,000 cattle feedlot.
- BBP will operate for 10 years, with the opportunity to renew agreements for an additional 10 years.
- The 3,3MW of electrical power generated will be sold to an industrial off-taker via a power purchasing agreement (PPA).
- Total project costs are estimated to amount to R135m. The project is structured as a limited recourse finance transaction, with the IDC providing a commercial loan equal to 70% of total project costs.
- BBP is at financial close, and should become operational in Q4 2014.

THE BRONKHORSTSPRUIT BIOGAS PROJECT



WASTE
REDUCTION

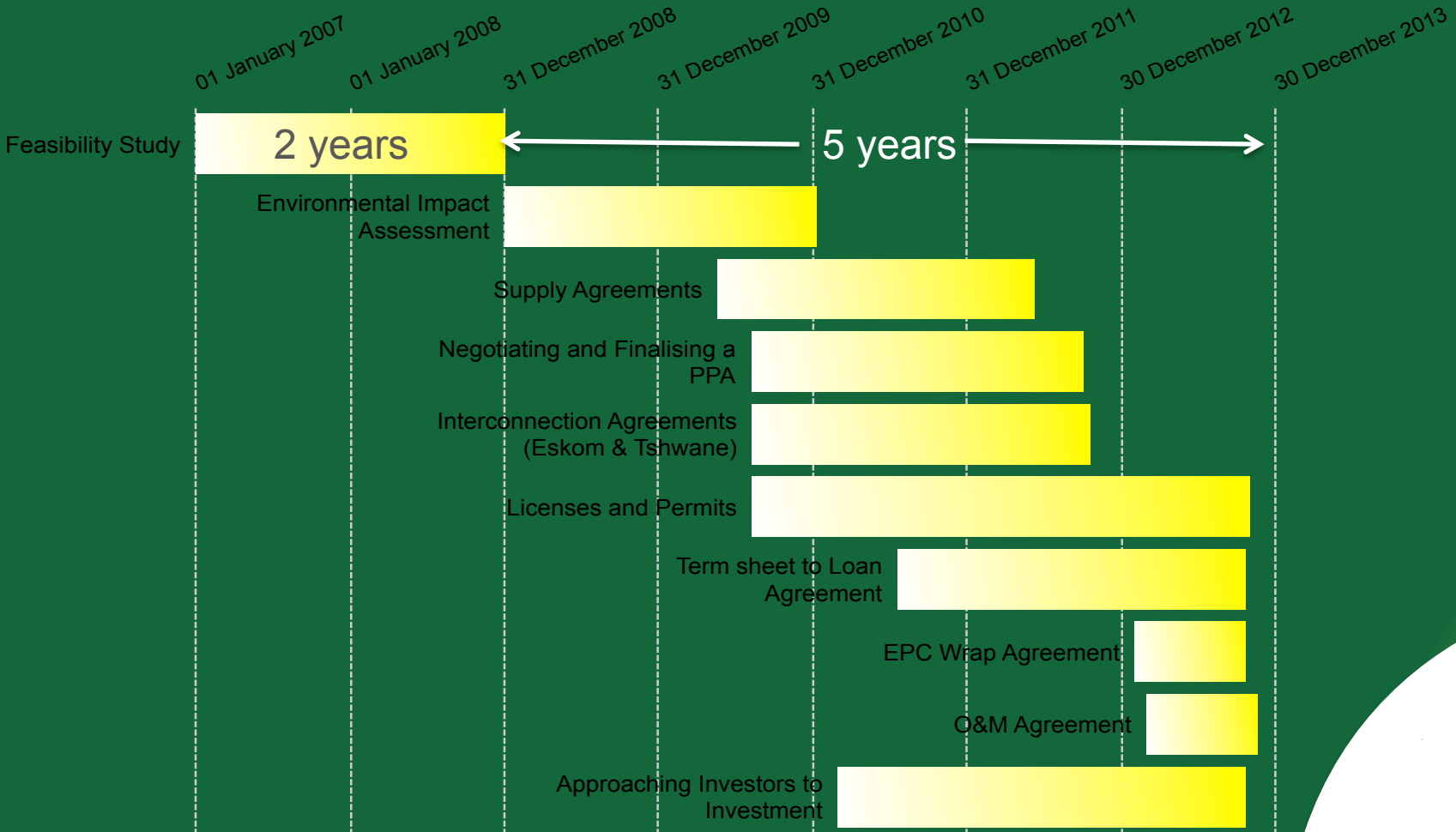
LANDFILL
AVOIDANCE

JOB CREATION

CLEANER
ENVIRONMENT

PROVIDE
ENERGY SECURITY

BBP – PROJECT TIMELINE



SOME INTERESTING FACTOIDS

- Initial quote for EIA R300K final cost R1.5M
- Original WULA submission was lost by DWA in 2011 and as a result BBP had to re-apply in 2012
- Legal fees of R7M, 10 months of protracted negotiations
- Strong support from government senior officials: both local and national. However, bottleneck came from officials on the ground
- Eskom grid connection unit was world class, met every deadline and supported the process. However, not open to discuss sharing of costing for the connection

Environmental escalations

- **Full EIA required whereas a Basic Assessment would have sufficed:**
 - Triggered by Air Emission License because of the plant being considered as “animal processing facility” because of the presence of abattoir waste
 - Also “” Water Use License: irrigation, storage of dirty water, use of water from Dams
- **Biogas is not properly understood by officials as a result it is added to listed activities: further specialist costs and time for assessment**
- **DWA officials had no set time frame within which to respond unlike other licensing departments**
- **The digestate from fertiliser is a high grade organic fertiliser in Europe and is used for crops such as Maize. Local regulations requires the project at great cost to get rid of valuable nutrients.**

Legal process

- The lender outsourced legal to one of the top attorney firms
- REBID wrongly became the benchmark - which should not apply for a small IPP
- No real incentive to close the deal, the legal process has taken 10 months to date
- Other than investors' attorneys, all other attorneys were not familiar with typical project finance requirements

LESSONS FOR DEVELOPERS:

FUNDING: Line up as much funding as you can from the start

LEGAL ADVISORS: Sign up project finance lawyers and aim for a fixed fee contract – only use one firm for the transaction

FINANCIAL ADVISORS: Unless you have done this before you need project finance advisors

LONG AGREEMENTS: Your agreement start date should provide you with flexibility.

YOUR BANK: Clarify all terms & conditions before you go out for tender.

YOUR INVESTORS: Seek patient investors with a vision.

LESSONS FOR REGULATORS:

LICENSES:

Simplify and streamline the processes – one license for land use, water usage, waste management.

Application process could seriously be quicker.

MUNICIPALITIES:

Provide clear directives and a wheeling protocol.

DOE, NERSA & ESKOM:

Industry is best supported through strong supportive policy frameworks

THANK YOU

Thank you

