

Industrial Development Corporation

Bankability of Organic Waste Treatment: Investment Criteria and Lessons Learned

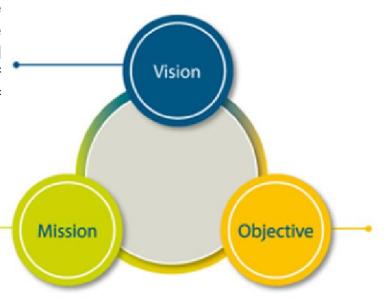


23 August 2016

Promoting economic growth and industrial development



To be the primary driving force of commercially sustainable industrial development and innovation for the benefit of South Africa and the rest of Africa



Leading industrial capacity development

To contribute to the creation of balanced, sustainable economic growth in South Africa and on the rest of the continent. We promote entrepreneurship through the building of competitive industries and enterprises based on sound business principles.

Summary of IDC's main activities



Activities	Customers	Business Lifecycle	Funding Products	Regional Involvement
 Provision of development finance Project development Research and policy inputs Fund management Non-financial forms of business support Capacity building 	•Business •Government •Other DFIs	 Conceptual Pre-feasibility Feasibility Product commercialisation Establishment Expansion Mature 	 General debt Quasi-equity Equity Export/import finance Short-term trade finance Bridging finance Guarantees 	• South Africa • Rest of Africa

Sectors supported by the IDC



Value Chains

Chemicals and Textiles

Basic & Speciality Chemicals

Chemical products & Pharmaceuticals

Clothing & Textiles

Agriculture & Agro-Processing

Agro-Processing & Agriculture

Metals

Basic Metals and Mining

Machinery and Equipment

Automotive and Transport Equipment

High Impact

Heavy Manufacturing

Light Manufacturing & Tourism

Media & Motion Pictures

New Industries

Industrial Infrastructure

Funding Applications



- fixed assets and working capital
- new projects, expansions and rehabilitations
- relatively sizeable projects
 - -(note: smaller projects considered in the rural and priority provinces)
- projects that exhibit sustainable economic merit
- projects with significant developmental impact

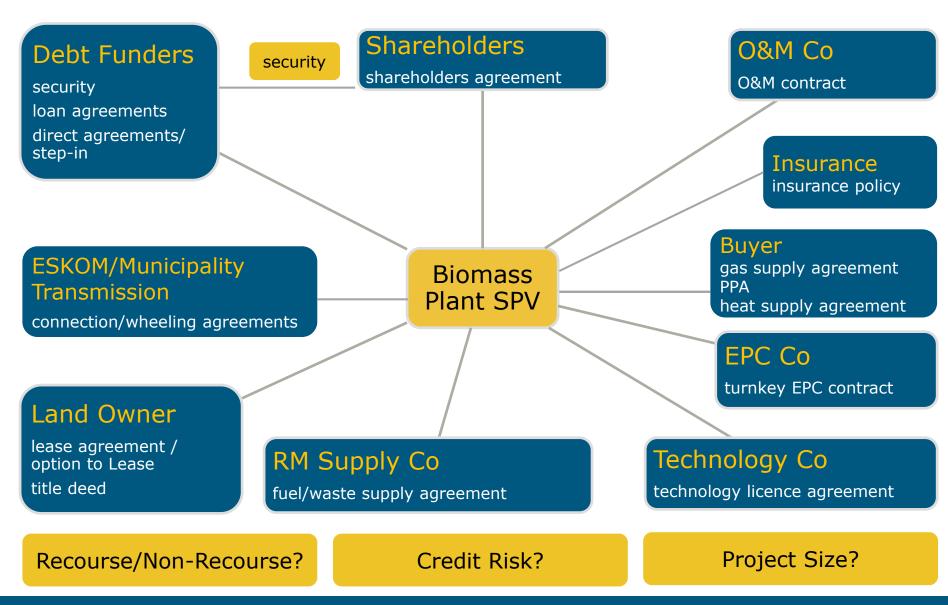
Development Considerations



- job creation potential
- broad-based black economic empowerment
- regional development
- black industrialists/women and youth ownership
- foreign revenue potential/export
- local content in capital expenditure: more than 50% of capital expenditure should be sourced locally

Typical Contractual Structure





Regulatory Requirements



- re-zoning certificate
- water use licence (if required)
- emissions licence (if required)
- notarial lease / subdivision ministerial approval
- EIA record of decision
- waste disposal licence (if required)
- generation licence (if required)
- registration of servitudes, etc.

Advisors



- lenders technical advisor (depending on project size)
- environmental advisor
- town planner (re-zoning)
- insurance advisor
- lenders legal advisor (depending on the project size)
- other

Key Considerations



Debt Funders

step-in rights

Technology Co

technology and supplier track record / references exclusivity or rights warranties robustness

ESKOM/Municipality Transmission

RM Supply Co

concentration risk
supply alternatives
feedstock evaluation
cyclical nature / stockpiling
reputability / penalties
municipal waste (< 3years)

Shareholders

credit risk (guarantees) experience (strategic) asset base

Biomass Plant SPV

financial model
project / equity IRR
DSCR / LLCR
sensitivities
gearing / security

O&M Co

reputability / track record duration : two to five year tail performance penalties

Insurance

construction period operating period

Land Owner

EPC Co

EPCM alternative construction grading performance guarantees liquidated damages reputability / track record technology wrapping

Buyer

duration: two to five year tail payment guarantees credit risk PFMA / MFMA (process)

Challenges



- relatively cheap tipping cost at landfills
- difficult to find market for heat produced
- securing off-take for electricity challenging due to grid local access/integration
- challenges in dealing with municipalities (capacity, MFMA, MSA)
- inadequate raw material supply contract duration
- project developers: limited resources, experience and own funding
- biogas industry in SA not as developed as in Europe
- project site generally on off-taker land requiring notarial lease
 agreement or subdivision, both of which requires ministerial approval

Key Lessons Learned



- lack of appreciation for local conditions leading to design faults
- inadequate project implementation controls resulting in cost overruns
- low electricity rates during off-peak periods
- feedstock inconsistency in terms of quality and quantity
- scarcity of appropriately skilled people to manage plant during operating period
- excessive project development cost associated with smaller projects resulting in unattractive project returns

Industrial Development Corporation
28th Floor, ABSA Centre, 2 Riebeek Street,
Cape Town
PO Box 6905, Roggebaai, 8012
South Africa
Telephone (021) 421 4794
Facsimile (021) 419 3570
E-mail callcentre@idc.co.za



Thank You Questions?

