

TRENDS AND OPPORTUNITIES – ORGANIC WASTE

DST Workshop, 26 February 2014

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CURRENT TRENDS IN CAPE TOWN (W-E)

- Private sector AD facilities – mostly planned: Soil & More Reliance (Klipheuwel, combined with composting), Enviroserve (pilot plant, Stikland), Waste Mart/Farm Secure (Athlone: mono waste – food residue), some chicken farms (facilities established for on-site processing), pilot pyrolysis plant (Somerset West).
- City planning 3 LFG projects – part of CDM: Coastal Park (electricity generation), Bellville South (gas for heating), Vissershok (option undecided, possibly gas for heating).
- City planning sewage sludge AD plant (near Vissershok).
- City sewage sludge drying facility (Cape Flats WWTW), needs major capital refurbishment... Industry opportunity RDF?
- City pilot pyrolysis plant (Kraaifontein) – short term test.
- Regional: Drakenstein Municipality – incineration + AD plant, Stellenbosch Municipality (considering AD), but...
- Waste tyres: key opportunity, but lots of work to get through SCM process to negotiate contracts (alternative to delayed REDISA).

OPPORTUNITIES FOR ****

- Opportunities to maximise reuse, recycling and recovery depend on:
 - Processing & Manufacturing capacity & proximity
 - Market development: materials & goods
 - Export of beneficiated materials & finished goods
- Major shifts need in thinking to address problem wastes and large volume wastes
- Contextual, cannot generalise – depends on local economy and location relative to major economic centres where processing capacity is situated.
- High energy value materials: recycling and reuse (including composting is competition to W-E, but is necessary in terms of natural resource use).
- Focus for municipalities and the private sector should be on organic materials (GHG mitigation).

SCHEME OF DIFFERENT POSSIBILITIES TO USE BIOGAS

Sell gas to 3rd party for heating (revenue), Own-use (cost off-set)

with additional benefits ...

Use on-site (cost off-set), Sell electricity (revenue)

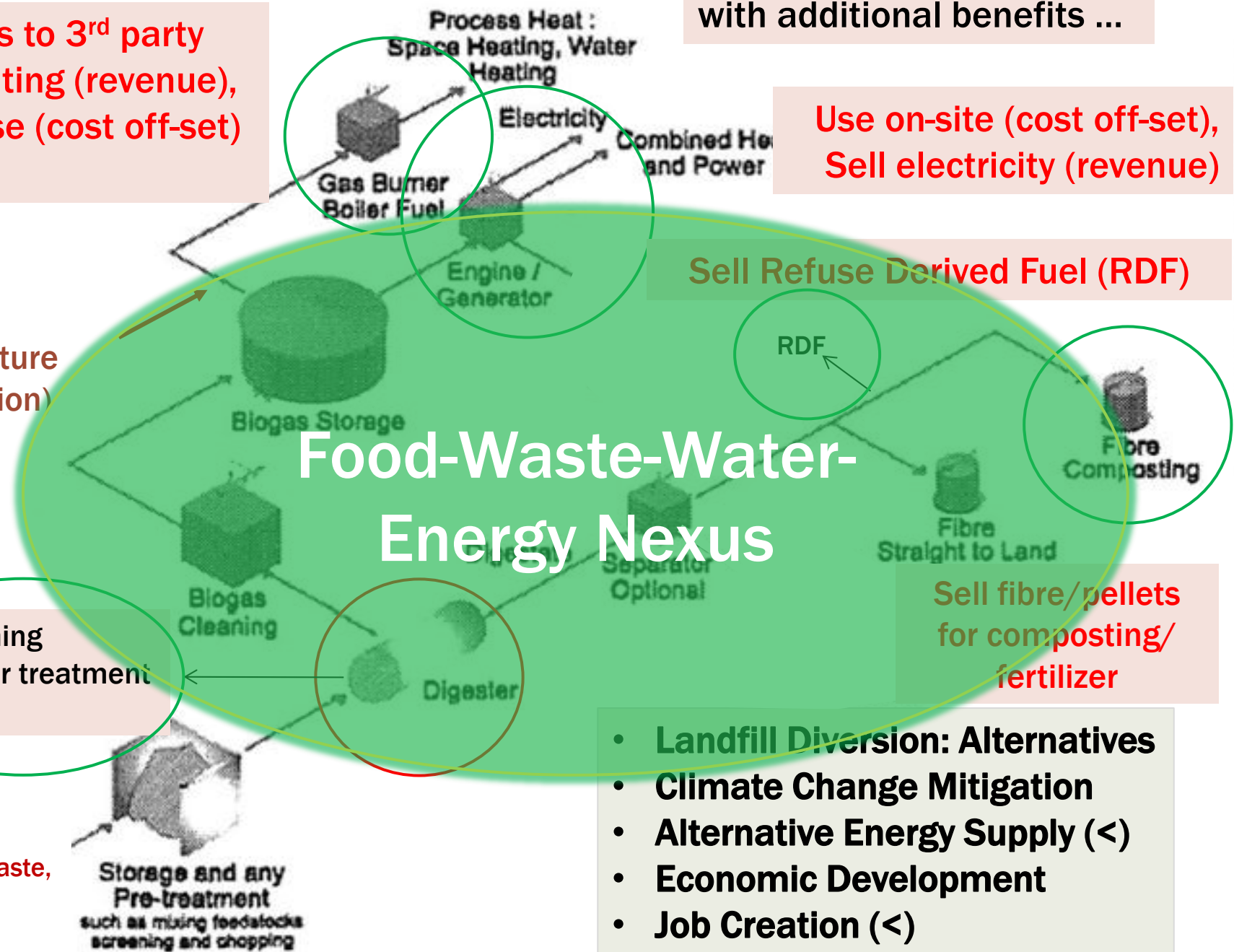
Sell Refuse Derived Fuel (RDF)

Sell fibre/pellets for composting/fertilizer

LFG capture (mitigation)

Reclaiming water for treatment & reuse

Bio-mass feedstock: Organic Waste, Sewerage Sludge



- **Landfill Diversion: Alternatives**
- **Climate Change Mitigation**
- **Alternative Energy Supply (<)**
- **Economic Development**
- **Job Creation (<)**

OBSTACLES TO MOVING FORWARD

- Energy sector legislation: key obstacle to small scale projects.
 - Special policy, e.g. REIPPP far too expensive and complex.
- Lack of fiscal legislation supporting sustainable green projects (e.g. levies, special tariff dispensations, etc.)
 - Type: where is payment effected (e.g. pre- or post-consumption)?
- Lack of structure, standards in biogas industry.
- National Waste Collection Standard: incorrect focus to achieve a “by science objective” regarding climate change
- Investors/ Funders: risk averse - call for guarantees, and expectations for ROI are unrealistic and unsustainable.
- Government-assisted interventions necessary to initiate and establish key sectors (e.g. German energy industry: PV scheme).
- MFMA/ SCM/ local govt. legislation: causes lost opportunities.
- Industry Waste Management Plans and Extended Producer Responsibility (EPR).