

August 2016

POTENTIAL FOR WASTE TO ENERGY IN ZIMBABWE

The answer to Zimbabwe's waste management needs

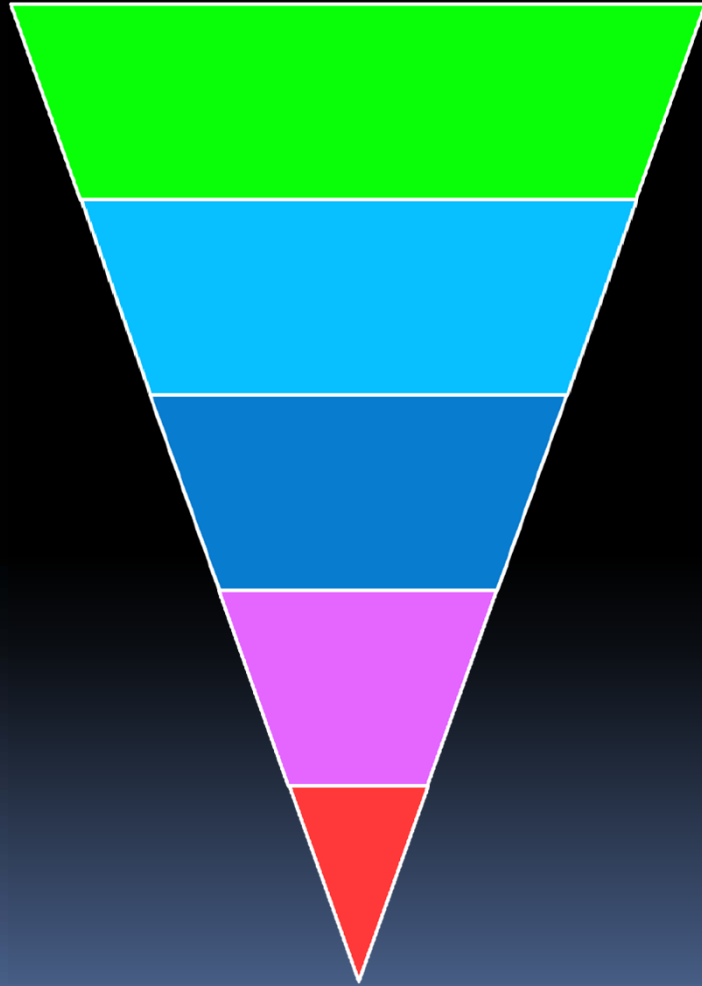
The Problem

Human beings generate waste

- Most of this waste ends up in dump sites
- In Zimbabwe these are poorly designed and are a source of unwanted emissions
- We are talking of 3000 Tonnes of waste every day!



Waste Management Priorities



PREVENTION

If you can't prevent, then...

REUSE

If you can't reuse, then...

RECYCLE

If you can't recycle, then...

RECOVER other value (e.g. energy)

If you can't recover value, then...

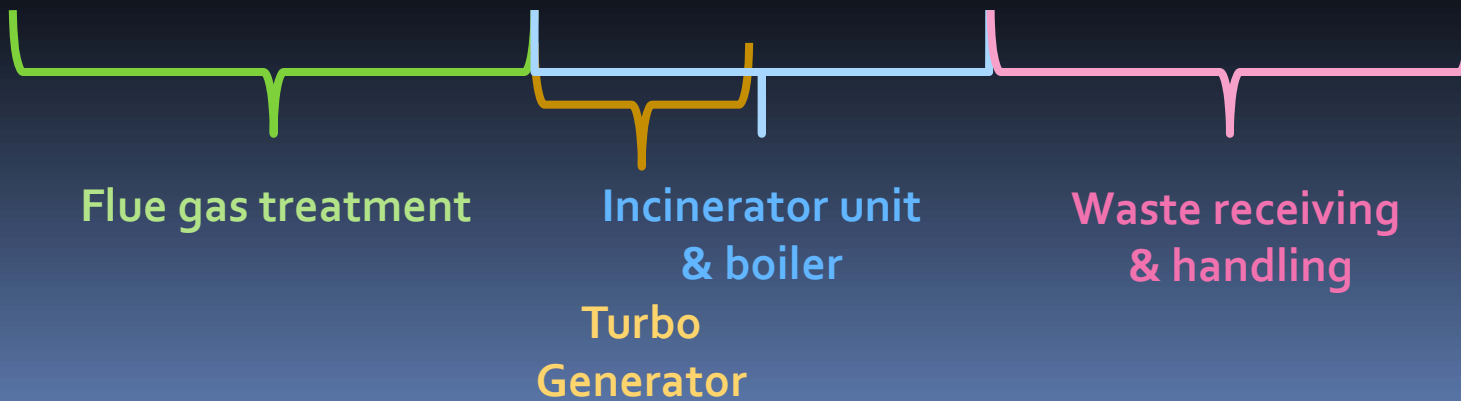
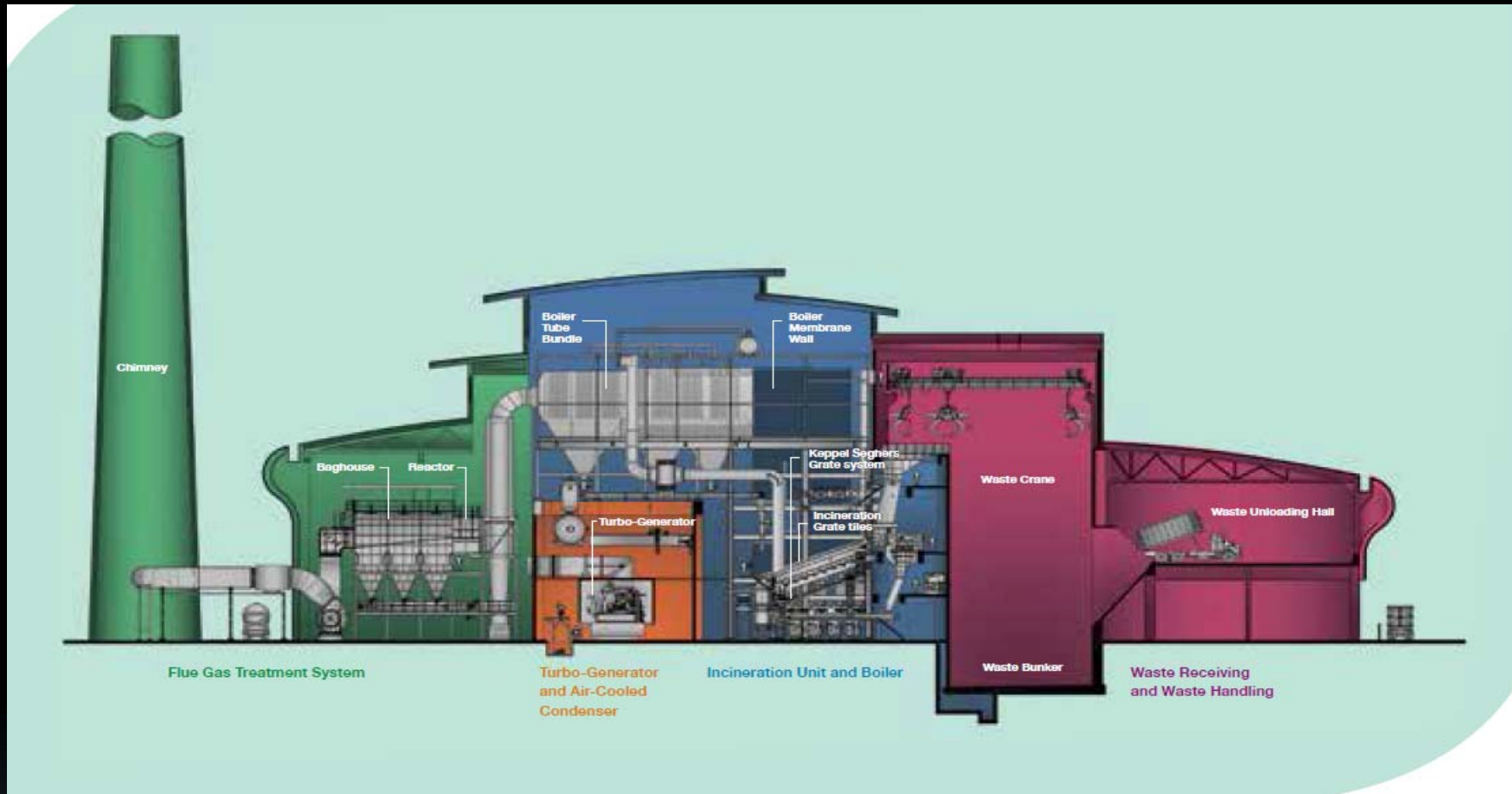
DISPOSAL

Landfill if no alternative available.



Recovering Value- Energy

- Waste can be turned into a very valuable commodity ie Energy
- Harare's Pomona dumpsite receives 1000 tonnes of waste per day
- 57% of this waste is combustible with with a calorific value of 7-8 Mj/Kg
- Enough to generate 28MW of Electricity using the tried and tested Rankin cycle generator



Environmental Considerations

- If left in dumpsites 3000 Tonnes of MSW will generate 1,763 KT Co₂ Annually!
- By developing HWSTE plant there is a potential to save 41% of CO₂ emissions annually.
- Potential for more savings if this strategy is extended country wide

Benefits to Zimbabwe

- Rubbish will become a valuable commodity, and disappear from the streets of Zimbabwe.
- This will reduce vermin and the plague-like diseases that they carry.
- Overall sanitation will improve which will reduce the incidence of cholera.
- Refuse collection and recycling will provide employment across the spectrum of society.



Benefits to the Environment

- Expensive and undesirable waste landfill sites will become a thing of the past.
- Air and ground pollution from landfills will cease to be a public and environmental nuisance.
- Land currently used for landfills can be mined and the land sterilised and used for new development.
- Reduction in Co₂ emissions

THANK YOU

