

## Waste, The environment & Money.....

Domestic and Commercial Waste is a significant and growing problem

- Environmental pollution is a growing and critical problem
- Demand for Energy is growing and the demand for clean energy is prevalent
- A solution reconciling these issues is vital

Current Solutions for waste

Landfill / Sea Dumping

Sea Dumping will be illegal globally by 2013

Landfill is recognized world –wide as a health, environmental and safety issue

Incineration

Environmentally difficult (NIMBY)

Limited capacity

No useful result

### Landfill

Land in short supply and can be put to better use

Environmental, safety and health issues

Is a cost to the Authority: not a revenue stream:

Just hides the problem

Not a realistic long term solution

### Incineration

Not environmentally friendly

Bi- products highly toxic which are expensive to clean/dispose of

Very often, aesthetically unacceptable “Not in my back yard”

### EFW – Business Proposition

Take almost **any** type of waste and produce **Gas or Electricity!**

**99%** of Waste is converted

The only by-product is an **inert low grade aggregate** which can be sold for use in construction

Or used in another revenue producing process to create “Designer Aggregates” as an additional revenue stream

Ferrous and non-ferrous metals can be extracted, producing a revenue stream

The amount of gas or electricity produced depends on the volume, moisture content and CV of the waste

Electricity is a valuable commodity and can be used locally or sold into the grid, thus releasing more oil or natural gas to the International market.

Input fuel is **WASTE**

Effectively **free to the operator but**, in fact, could generate **extra revenue via Gate Fees, dependent on local agreements**

## Advantages

- Makes useable energy from most types of waste
- Clean and efficient
- Environmentally friendly
- Eliminates Landfill
- Produces gas or electricity you can sell or use
- Only bi-product can be used to produce designer building aggregates you can sell
- Ferrous and non-ferrous metals can be extracted to produce another income opportunity

## ***A UNIQUE COMBINATION OF TECHNOLOGY BACKED BY EXPERIENCE***

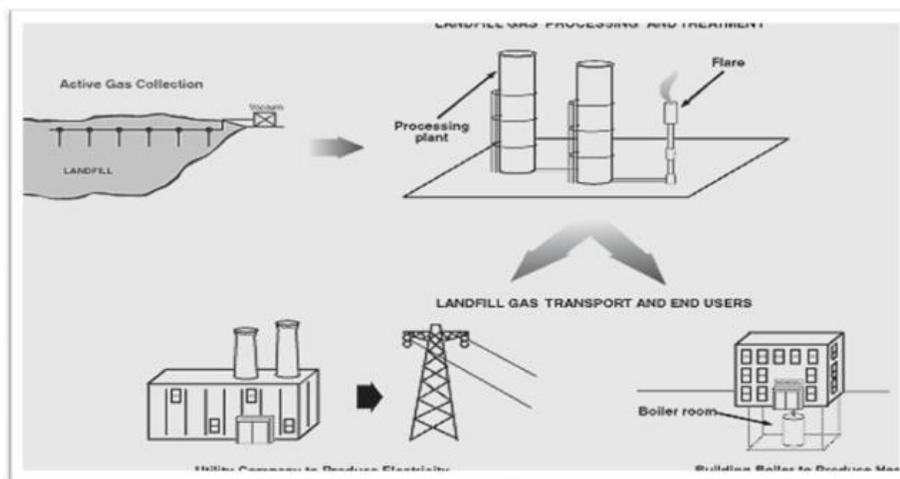
## Provectus' services

### The services include:

- Landfill engineering and design
- Site and civil design
- Environmental services
- Air quality services
- Biogas services
- Transfer, recycling, and processing facilities
- Operations and maintenance
- Landfill Engineering and Design Services
- Bio-degradable kitchen waste management system
- Providing the organic compost/fertilizer

While Provectus Middle East is a relatively young firm, it is comprised of senior industry leaders with more than 30 years of experience in designing environmental issues of oil & gas companies/landfills. The engineers have been in the forefront of the move towards comprehensive planning for all facilities necessary to operate and support a landfill in an efficient and environmentally compliant manner, while accommodating future growth. The landfill design experts investigate all possible ways of improving a facility's bottom line, depending upon the landfill's site-specific needs.

## Landfill Gas Recovery System



## Introduction to Organic Fertilizer process from food waste

At first, Provectus Middle East's mission is to provide municipalities with an economical, alternative for the disposal of kitchen waste. Second, it's to provide a top quality, recycled material to the Farmer so that may benefit from compost's many good properties and organic element. In addition, we hope to build in the consumer a positive feeling about the feasibility of using recycled garbage waste as a fertilizer.

Provectus Middle East's business model presents an opportunity to recycle a landfill bound waste, save the landfill space, and give the consumer the opportunity to benefit from the many positive properties of the composted material.

Kitchen waste contains a high nutrient value can be composted to produce a quality plant food and soil enhancer at far lower prices than chemical fertilizers currently on the market.

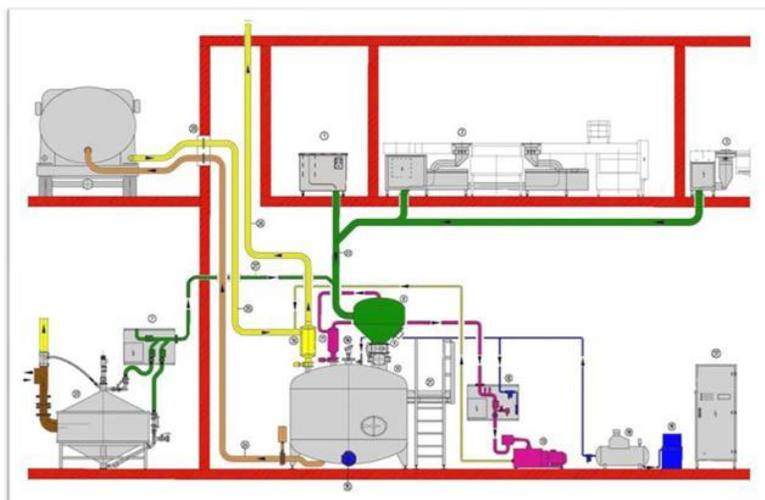
### Our major service:

Is to collect all the food waste which include grease trap sludge & organic waste and sent back to our warehouse for composting process and turn into high nutrient bio-fertilizer by our high speed organic composter.

The organic refuse arising in the kitchen is directly fed into the integrated feeding station of the wash-up or transport system. An intermediate storage of food residues in separate trolleys is no longer necessary. The integration of the system guarantees ergonomically handling of dishes and food residues. The obvious working relief allows an essential saving of time.

Due to a modular construction, the wash-up as well as the preparation area can be integrated into one system. The vacuum transport of the garbage is executed via a stainless steel pipe system into a collection tank where the garbage is intermediately stored until its disposal by the tanker. The vacuum required for the garbage transport is provided by a vacuum pump.

The advantages of a modular system are there due to the possibility of an optional grease trap disposal (grease and mud parts), which can also be executed by means of the Waste Management System.



## The use of Compost

Compost is composed of organic materials derived from plants and animal that has been decomposed largely through aerobic decomposition. The process of composting is simple and practiced by individuals in their homes, farmers on their land, and industrially by industries and cities.

Compost is rich in nutrients. It is used in gardens, landscaping, horticulture, and agriculture. The compost itself is beneficial for the land in many ways, including as a soil conditioner, a fertilizer to add vital humus or humic acids, and as a natural pesticide for soil. In ecosystems, compost is useful for erosion control, land and stream reclamation, wetland construction, and as landfill cover.



For an example, Dubai Municipality is spending 1.5 AED billion per year to maintain 2 landfills that can be address by reducing landfills bound trucks, Recycle the food waste and other products, and Reuse the products e.g. organic fertilizer for “Green Belt” projects.

Provectus Middle East is providing the services to address the Environmental Solutions for future generations.