D'CAPS

securing the future

Listen ▪ Advise ▪ Deliver

MAXWORTH

About Us

A VIBRANT COMPANY THAT PROVIDES PROJECT MANAGEMENT EXPERTISE AND SUPPORT.

We offer clients a range of services from conceptual development, to construction on to operations. Industry-driven supply chain strengths and global expertise help offer customers the best in quality services.

We are well placed to assist clients in overall project delivery.

Our Services

Liaison

- needs evaluation,
- regulator/private sector interaction,
- supplier identification and interaction
- power purchase agreement (PPA) framework,
- PPA documentation,
- evaluation of bids,
- budget management.

Consultancy

- system study,
- technology readiness level assessment,
- process analysis,
- solution definition,
- cost estimation
- uncertainty analysis
- project risk management,
- risk-based schedule analysis,
- decision analysis,
- supplier management,
- clients engineer onsite
- tender documentation & evaluation.

Project Delivery

- architectural services,
- project controls,
- design/engineering,
- construction,
- vendor/sub-contractor selection,
- procurement of material and equipment,
- project commissioning,
- direct investment & finance.

Multifaceted Expertise

115 years of cumulative experience

Based in Australia MAXWORTH SYSTEMS AUATRALIA is the consultancy wing of the group and caters to the international market.

Incorporated in India DCAPS Projects LLP is the Engineering Procurement and Commissioning arm of the group focused on turnkey projects delivery.

VARIATE diversified conglomerate into Renewable power sector (Solar, Wind & Hydro Power), Solid Waste Management and Processing, Metro and Urban Mobility, E-Vehicles for Mass Mobility

Over 35 years of expertise and extensive knowledge in Plastic Packaging and Aluminum Extrusion Technology

Synergetic Ventures Pvt Ltd is an Independent Strategic Advisory and Investment Firm focused on creating value and providing solutions. Leveraging their widespread network of financial and corporate relationships to help raise debt and equity financing from the most relevant sources.

Solution Partners

Organic Energy

BIOCONSTRUCT , one of the leading German suppliers of turn-key bio methane plants. Converting organic waste into Energy in the form of Power or Compressed Bio Methane

PV -Solar

VIKING RENEWABLE an internationally acclaimed enterprise with its main focus on turnkey solutions specializing in the design, construction, and commissioning of large-scale photovoltaic power plants

MSW - WtE

Established in 1997 in South Korea , CECOBLUE through constant research and development, offers the most economical and efficient MSW to Energy or WtE that discharge non polluting clean gas by completely incinerating the waste.

Landfill Management

KBEC is a South Korean company specializing in landfill management and associated technologies.
Holding patented methods that evaporates and transpires wastewater from the landfill to the atmosphere by using metabolism of plants rather than by discharging it to nearby surroundings.

DCAPS Firewall

Client

Visions, Concepts ,Needs , Solutions & Deliveries

MAXWORTH
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Identification , Design, Verification, Risk Control & Project Control

Turnkey / Greenfield

BIOCONSTRUCT

VARIATE

VIKING RENEWABLE

Finance

SYNERGETIC VENTURES

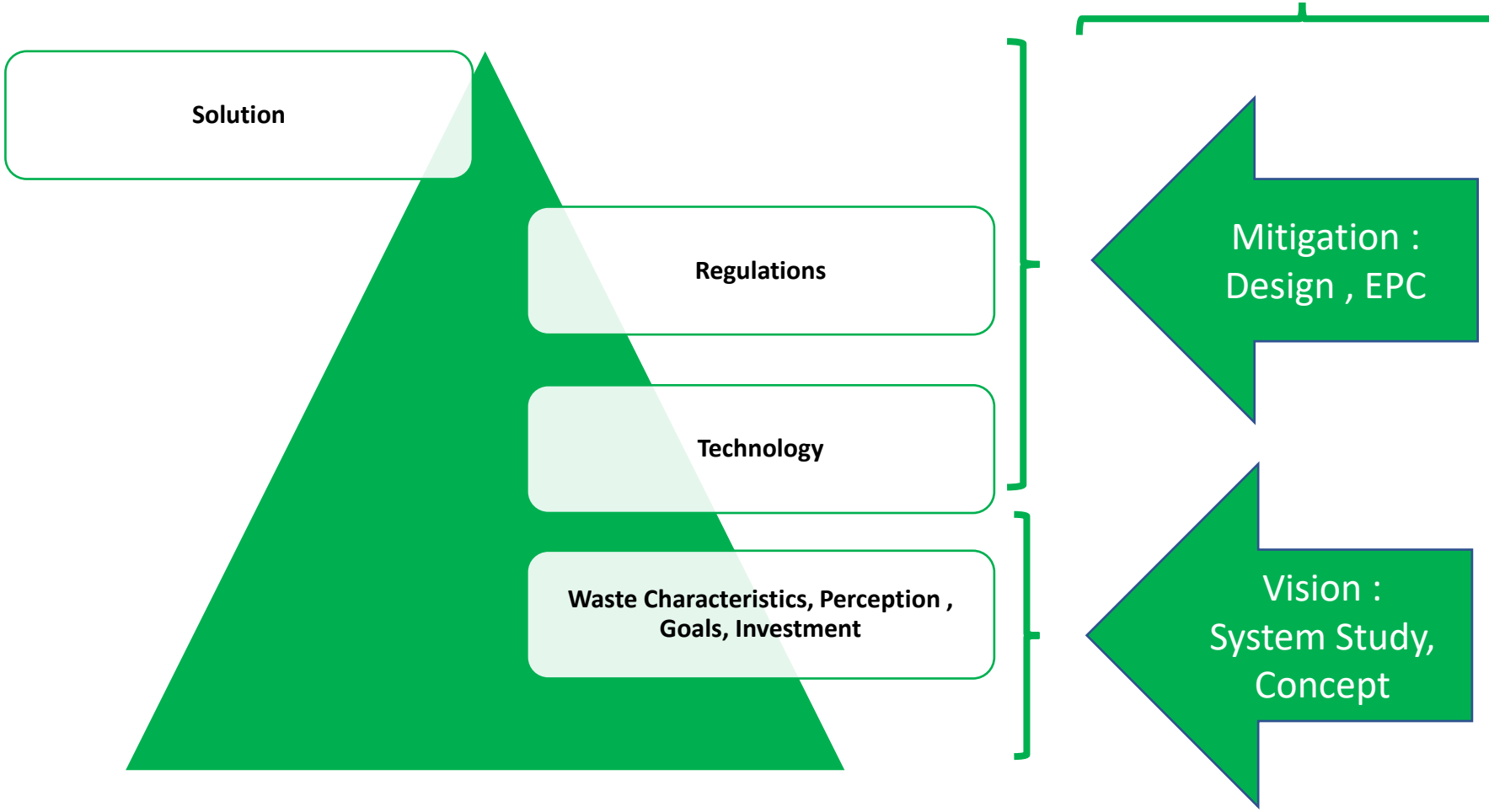
Government & Regulators

Power Vendors

New Tech Vendors

Why US ?

Multifaceted Expertise in One Place – Delivered !



PV Solar

- System Design
- Product selection
- Engineering
- Procurement
- Construction partnership with local vendor
- Commissioning

MAETAL - SPAIN	50 MW – Ground Mount
WYKES ENGINEERING - UK	12 MW – Ground Mount
BESTER GENERATION – UK	12 MW- Ground Mount
ELMYA – UK	4.5 MW – Ground Mount
WYKES ENGINEERING - UK	45 MW – Ground Mount

KIRLOSKAR BROTHERS – INDIA	1.5 MW – Roof Top
RR PLAST – INDIA	160 kW – Roof Top
KEN CHEMICALS – INDIA	120 kW – Roof Top
DYANDEEP HIGH SCHOOL - INDIA	20 kW– HYBRID - UPS Roof Top
BARTAKE ELECTROFAB – INDIA	20 kW – OFFGRID Roof Top
JOTUN PAINTS INDIA	10 kW – Pilot precursor to 990 kW Roof Top

PV Solar Installation Types

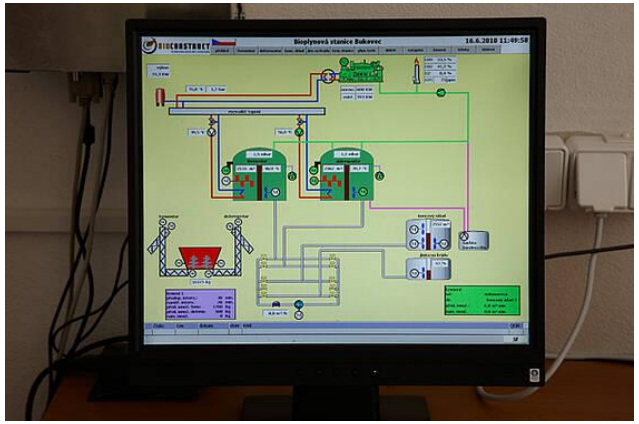
D'CAPS securing the future

VIKING RENEWABLE

VARIATE

Organic Waste to Energy

- Anerobic Digestion
- Power
- Bio CNG
- Linear gas production in any environment
- Fully Automated AD Operation



Organic Waste to Energy

Biogas plant Vinni
City: Lääne-Virumaa
Since: 2012
Power: 1 x 526 kW
1 x 844 kW

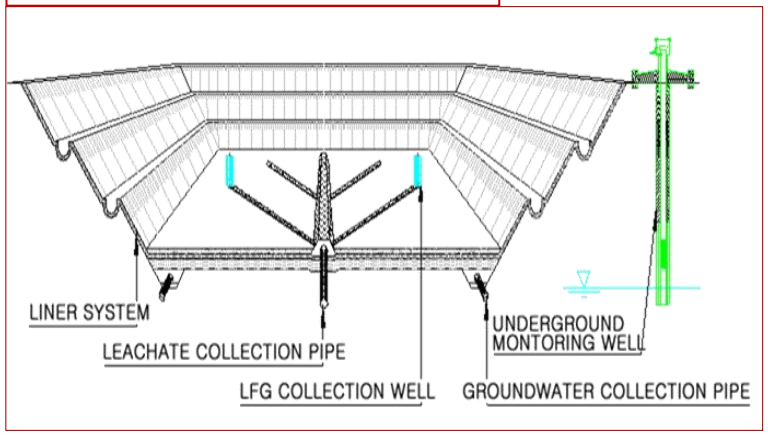
Biogas plant Randkanal Nord
City: Köln
Since: 2012
Power: 1 x 1200 kW
Operated by utility company, Heat use

Biogas plant Redefin
City: Redefin
Since: 2008
Power: 2 x 250 kW
1 x 550 kW
3 x 630 kW
Grid bas feed

Biogas plant Lünen
City: Lünen
Since: 2009
Power: 10 x 250 kW

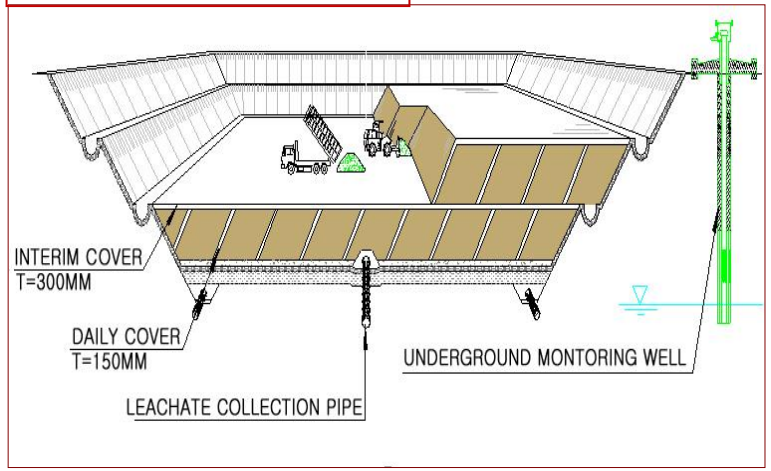
Sanitary Landfill Management

Landfill Construction

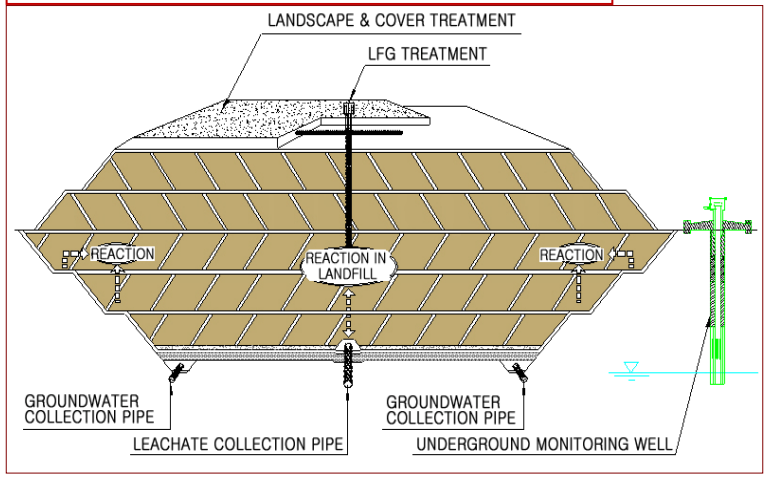


- Configuration of Sanitary Landfill
  - Liner system
  - Ground water collection and conveying facility
  - Leachate collection and conveying facility
  - Leachate treatment and disposal facilities
  - Stormwater runoff control facilities
  - Landfill gas collection facility
  - Intermediate and final cover
  - Environmental monitoring facility
  - Post-closure care

Landfill Operation



Final Cover and Stabilizing



Sanitary Landfill Management

□Geo-synthetic Clay Liner

Sorting & Mixing

Mixed Soil Distribution

Paving & Grading

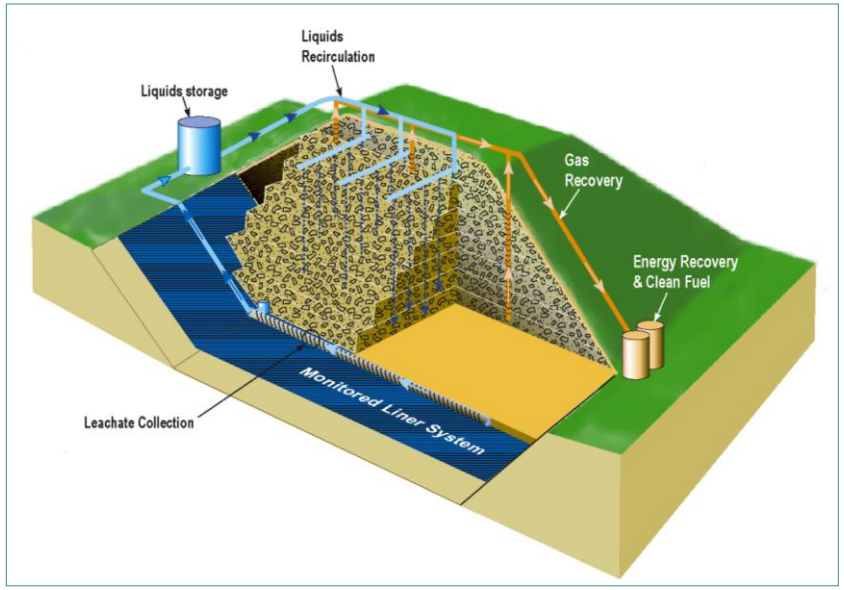
Roller Compaction

Moisturizing

Curing

Sanitary Landfill Management

LEACHATE RECIRCULATION TECHNOLOGY



☐ Advantages

Management of Leachate Flows

: Due to chemical reaction, leachate get clean itself

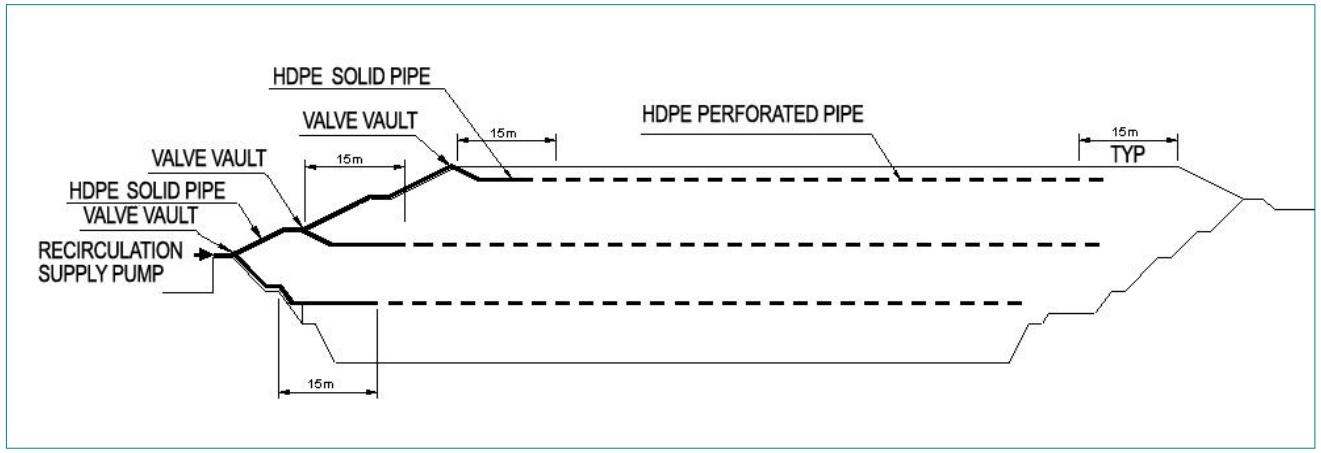
Partial Leachate Treatment

Enhance LFG Production Speed

Speed-up Landfill Stabilization

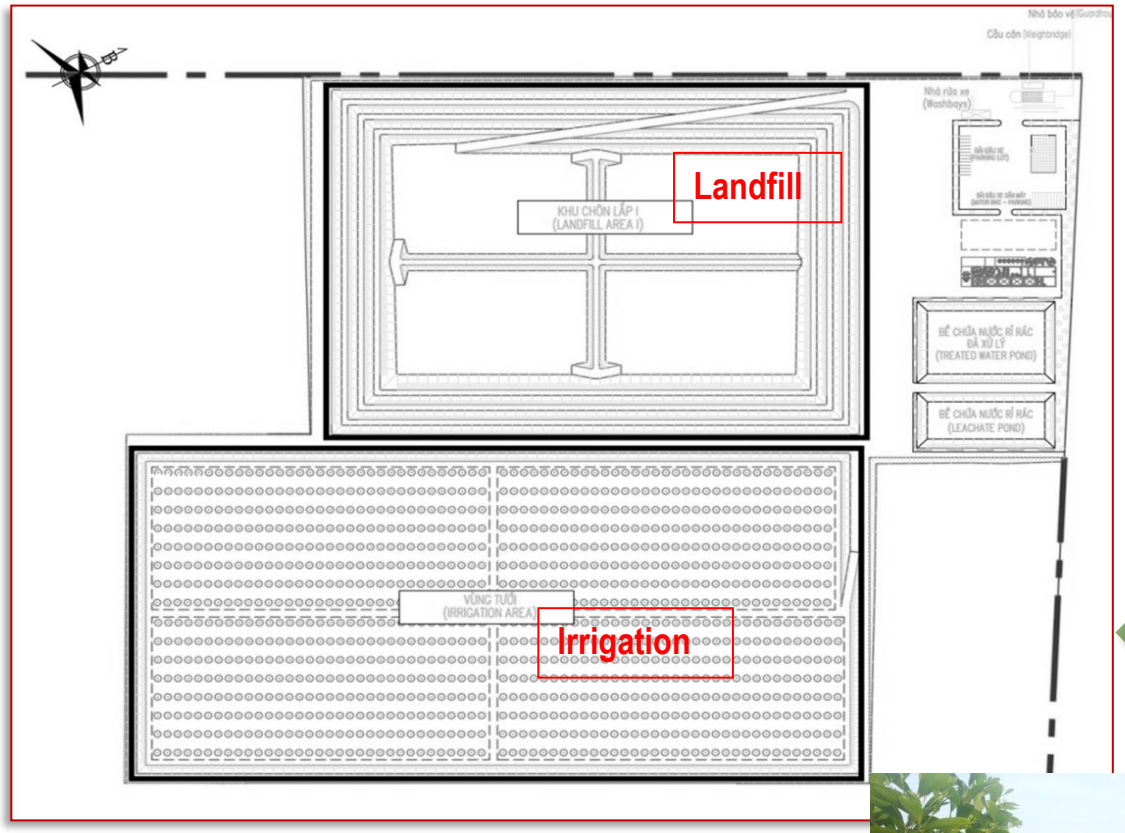
: Common landfill get stablized in 15-20yrs, KBEC Landfill takes only 5 yrs

※ Due to speed stabilization, landfill volume increase minimum 15-25%



Sanitary Landfill Management

LEACHATE IRRIGATION



Aerial View of Landfill

Scheme drawing about landfill and irrigation

Sanitary Landfill Management

LEACHATE IRRIGATION - PICTURES

- BR-VT irrigation area, top of the old non-sanitary dumping site -

Sanitary Landfill Management

Location	Phuoc Hiep Commune, Cu Chi District, Ho Chi Minh City, Vietnam		
Target waste	Municipal solid waste	Total area	192,250 m^2
Quantity of waste	2,000~3,000 tons / day	Filling height	35.3 m
Annual volume / duration of operation	5,696,660 m^3 / 7.5 years	Contract amount	US$ 21,000,000
Remarks	KBEC Korea secured the EPC contract from the city government, and upon completion of the construction, will operate and maintain the facility in collaboration with the city.		

Location	Toctien Tantan, Ba Ria Vung Tau, Vietnam		
Target waste	Industrial waste	Total area	141,975 m^2
Quantity of waste	500~1,000 tons / day	Landfill area	48,377 m^2
Annual volume / duration of operation	1,300,000 m^3 / 5 years	Irrigation area	61,373 m^2
Construction cost	US$ 15,000,000		

Sanitary Landfill Management

Location	192-1 san, Baekhyeon-ri, Sandong-myeon, Gumi-si, Gyeongbuk, South Korea		
Target waste	General waste	Landfill area	33,352 m^2
Quantity of waste	200 tons / day	Remarks	Leachate non-discharge technology was used with leachate recirculation technique.
Annual volume/ duration of operation	341,000 m^3 / 5 years		
Construction cost	US$ 7,300,000		
Remarks	KBEC consortium secured the EPC contract, and the construction was completed in 2007.		

Location	945-3 Dunsan-ri, Bongdong-eup, Wanju-gun, Jeonbuk, South Korea		
Target waste	General waste	Landfill area	28,505 m^2
Quantity of waste	400 tons / day	Remarks	Leachate non-discharge technology was used with leachate recirculation technique.
Annual volume/ duration of operation	567,021 m^3 / 5 years		
Construction cost	US$ 6,400,000		
Remarks	Our consortium secured the EPC contract, and the construction was completed in 2005.		

Waste to Energy (WtE)

CEB
Total Environment and Energy System
CECOBLUE CO.LTD.

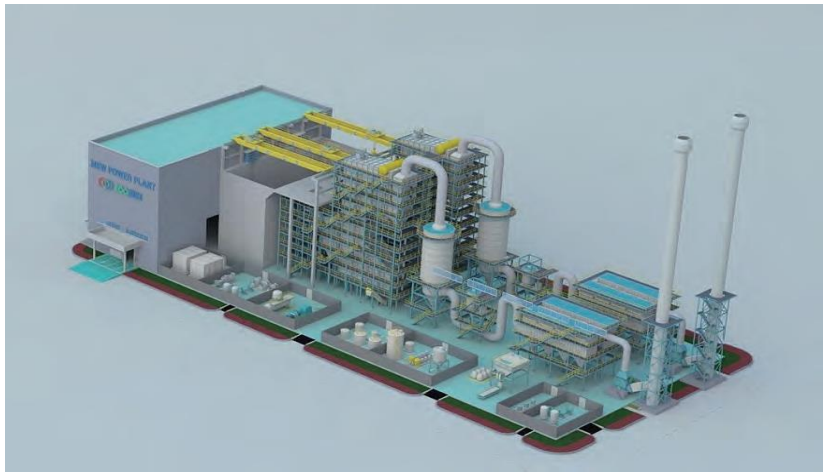
Microturbine Power Generation

Hot air turbines use heated air from a furnace that is fed via a turbine and converted into electricity by the connected generator. The considerable residual heat is then recycled as energy required for drying the waste.

Application: UNSEGREGATED Municipal Waste.
Facility capacity : 5 ton/day - 50 ton/day

- Stocker Furnace
- Rotary Kiln

Steam Turbine Power Generation



Boilers that use heat from a furnace generate high pressure steam that is fed to a turbine and converted into electricity by the connected generator. Residual heat is then recycled as energy required for drying the waste.

Application: UNSEGREGATED Municipal Waste, other recovered fuel types.
Facility capacity : 50 ton/day - 300 ton/day

Subject to design parameters including technology choice and waste characteristics

Waste to Energy (WtE)

Total Environment and Energy System
ECOBLUE CO.LTD.

Gasification Incineration facility

Controlled incineration of waste resulting in minimal pollutant release. Heat generated is used for power generation.

Application: Municipal waste, industrial waste, recovered solid fuel, hospital waste.
Facility capacity : 5 ton/day - 100 ton/day

Patent Holders:

- Gasification combustion technology
- Local distributed energy system process technology. (patent applied for)

Subject to design parameters including technology choice and waste characteristics

Waste to Energy (WtE)

Furnace

Dae-Han Construction ENG >> Type 400kg/hr

NamYangJu SungSaeng Industrial Complex >> Type 1,500kg/hr

Dong-A Seetech (YuYang Industrial Complex) >> Type 2,500kg/hr

Waste Gasification System

Dae-Han Construction ENG (ChunAn Industrial Complex 3) >> 1,000kg/hr

ChungHo Group Co.,Ltd. >> 1,800kg/hr

Lotte Confectionery Co.,Ltd >> 6.5 ton/hr.

Stoker Type Incinerator

LG Chem, Ltd. >> 1.3 ton/hr

Korea Export Packing Co.,Ltd. >> 2 ton/hr

Papers Business Unit, LG Mart >> 2 ton/hr

Our Milestones – Organic Waste to Power

- 2018 concept design for the Salalah Sanitary and Drainage Services Company SAOC - under the theme :
  " Mitigation of raw sewage sludge through , Energy efficiency & Environmental efficiency "

  - System concept design for a 27 ton per day sewage sludge and 6 tons per day of slaughter house waste to energy plant. Solution also includes a 3 MW PV solar power plant.
  - MAXWORTH also wrote the tender documentation and will also be evaluating the tender as "client consultant"
  - Project is under tender process with work start to be initiated around July 2021.
  - Projected value 6.8 million Omani Riyal.

- 2019 concept design and turnkey EPC submission for 200 tons per day "source segregated organic waste to energy" plant in Dubai, United Arab Emirates.
  - Plant is designed to be self sufficient in it is own power consumption with about 4000 kg per day of Compressed Bio Methane available for use in client's vehicles.
  - Project is private through a waste management company and is awaiting financial closure.
  - Project value 40.4 million Emirati Dirhams.

- 2021 concept design for 1500 tons per day sewage sludge to power plant, Kingdom of Saudi Arabia

Let's Get In Touch!

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