



Waste2Energy Solutions & Approach

Water Treatment & Desalination Solutions

- Emergency Relief: Mobile units that can provide immediate relief to communities of up to 5000 persons in remote disaster or emergency locations
- Quasi-Government Organisations such as: Harbours and Ports
- Public Sector Infrastructure: Waste Water Treatment Facilities, Bulk Water Supply from Desalination facilities
- Large Industries: Mining, Oil & Gas and Food & Beverage

Markets

Distillation Solution

- Feedstock: Wheat & Potatoes (excess or low quality) **Agriculture**
- Feedstock: waste carbohydrates (sugars and starch) **Bakeries**
- Feedstock: sugar-rich surplus materials **Beverage Companies**
- Landfill operators with the ability to segregate the carbohydrate-rich components **Landfill Operators**
- Feedstock: Cattails - Cattails grow wild in nutrient enhanced waterways **Municipalities or Farm dams**

Markets

OFFSETS

- Highest Grade/Highest Value Nutraceuticals/Pharmaceutical **Bioethanol (Alcohol)**
- Low Grade/Low Value Mult-Fuels **Bioethanol (Alcohol)**
- High Protein Animal feed

Small Scale Pyrolysis Solution

- Feedstock: Biomass, Manure **Small Farms**
- Offsets: Electricity 60kW/h, Hot Water & Sterile Waste **Small Farms**
- Offsets: Electricity 60kW/h, Hot Water & Sterile Waste **Hospitals**
- Feedstock: Hospital Waste **Hospitals**

Markets

Large Scale Pyrolysis Solution

- Feedstock: Municipal Solid Waste (black bags), Bio-Mass, Used tires, Used Oils, Contaminated Timber **Large Metro/Municipality**
- Offsets: Electricity 1MW/k per usable 1ton/h, Sterile Ash (roadfill), Sterile recyclables **Large Metro/Municipality**
- Plant Sizes: 400 tons per day - 6000 tons per day **Large Metro/Municipality**

Large Metro/Municipality

Approach

- 1 Understand Client Requirements**
R:Client, W2E
- 2 Define Client Requirements - Scope Solution**
R:Client, Consultant Engineers, W2E
- 3 Review Pre-Feasibility Business Case for GO/NO GO Decision**
R:Client, Consultant Engineers, W2E
- 4 Validate Solution & Secure Funding**
R:Client, Consultant Engineers, W2E
- 5 Initiate Feasibility** **Identify Candidate Sites**
R:Consultant Engineers, Supplier R:Client, Consultant Engineers
- 6 Selection Solution & Final Business Case**
R:Client, Consultant Engineers, W2E
- 7 Negotiate & Close with Client**
R:Client, W2E
- 8 Design, Build, Commission, Operate (Train/Mentor) & Transfer (optional)**
R:Consultant Engineers, Supplier, W2E
- 9 End-to-End Quality Management (Assurance)**
R:Consultant Engineers, W2E

Processes

WtE Pyrolysis

Thermal Mechanical Cracking using thermal decomposition of waste.

Water Treatment & Desalination

Reverse Osmosis (RO)