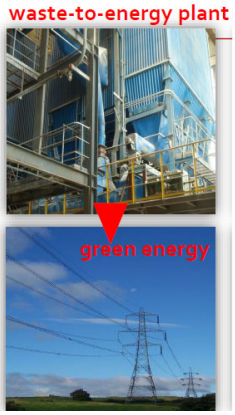
W2E - Project Deliverables

Go Green!We are synonymous to green! We have been continuously increasing the pace of Green Energy production effectively with optimum efficiency. **Green Energy**



Green energy is a generic term that means production of energy without compromising with nature and future generations. Green energy However there are many other relevant definitions given by various scholars and brand from past:"Effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable Energy has two key components: renewable energy and energy efficiency." **– Renewable Energy and Efficiency Partnership** "Dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations and the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy." **– Sustainable energy by J. W. Tester, et al., from MIT Press.** "Any energy generation, efficiency & conservation source where: Resources are available to enable massive scaling to become a significant portion of energy generation, long term, preferably 100 years." **– Invest - a green technology non-profit organization.** "Energy which is replenishable within a human lifetime and causes no long-term damage to the environment" **– Jamaica Sustainable Development**

Network

The transformation of W2E process to Green energy has many phases involved like Waste Receiving, Lifting of waste, feeding it to the W2E plant, Combustion, Steam generation and finally Power generation and transmission to its destination. Green Energy is the final outcome of Waste to Energy - Integrated MSW Management(Hyperlink to the landing page of W2E).

Usage of Ash - Zero Waste Concept Ash is converted to bricks and other building materials which is obtained with the help of incineration process, it's a process that reduces the volume of the solid waste by eliminating the organic contents, the leftovers after the incineration process are the nutrients and inorga

nic ma terials. The main c ompon ents that re mains are silicate and al uminiu m and iron oxide depen ding on wh ether a luminiu m or iron salt is used while p recipit ating. Of the nutrien ts in ash ph osphat e is the most i mporta nt to re cover, which can be leache d and r ecover ed by acid. I nciner ated sludge and ash from c o-incin eration with solid

waste and bio-fuel is leached with hydrochloric acid at different concentrations and contact time. Leaching with 1 M HCl or higher concentrations and during 8 hours gave more than 75 % dissolution of phosphorus.The remaining ash has got multiple benefits, it can be mixed with cement or concrete, brick or some other object can be

made of ash or the ash can be melted and solidified as a ceramic material.