http://www.changingworldtech.com/

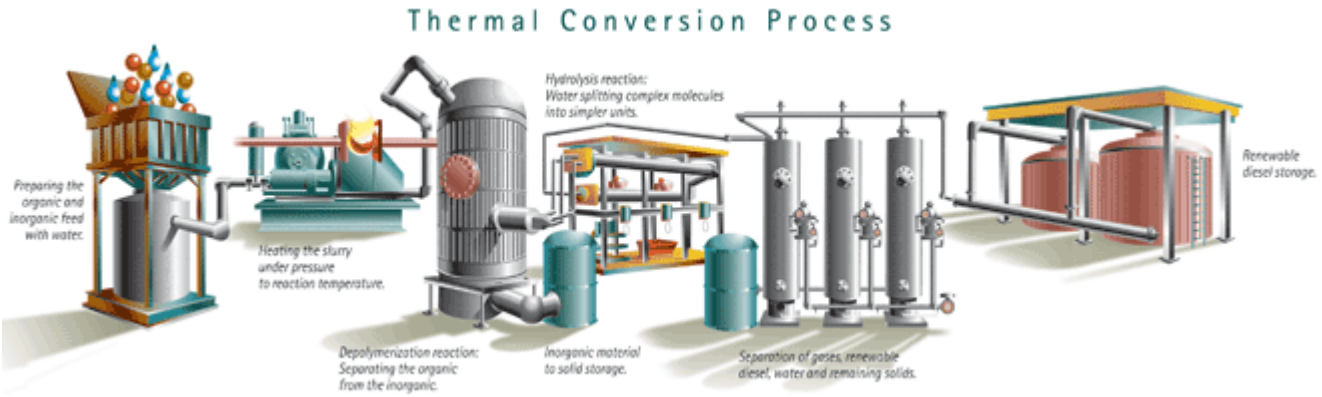
Changing World Technologies

Changing World Technologies (CWT) was founded in August 1997. Our purpose is to identify emerging technologies that specifically address the needs and problems in the energy and environmental arenas. We bring together the best technical and scientific expertise, validate the technologies and effect the commercialization of these programs

Many technologies have been used over the years to destroy troublesome waste, including incineration, but at an expense to the environment. Now, technological development has produced a new process that allows waste to be **reformed** into renewable fuels, thereby minimizing the environmental effects from the combustion of waste.

The TCP successfully converts fats, bones, greases, feathers and other wastes into renewable diesel, fertilizers, and specialty chemicals. TCP works with wet mixed feedstocks, and by cleverly utilizing water, avoids the energy penalty of drying the materials, typical of other technologies.

Agricultural wastes alone make up approximately 50% of the total yearly waste generation (6 billion tons) in the U.S. With TCP, the 6 billion tons of agricultural waste could theoretically be converted into 4 billion barrels of oil. Realizing only a portion of this incremental domestic energy production is clearly in our national interest, because it ensures greater national energy independence. At the same time, this production provides a permanent solution to serious environmental problems caused by current waste disposal practices.



The primary end product of TCP is oil. Oil yield is partly a function of the feedstocks used, and partly the specific combination of temperature, pressure and residence time utilized.

Waste generated by agricultural food processors has traditionally been transported to rendering facilities where it is ground, processed, and dried to make animal feed, fertilizer, and other chemical products. In the past several years, there has been extensive concern about using processed animal matter as a feed supplement for animals that are destined for human consumption. The TCP, however, transforms these waste streams into renewable sources of oil to fuel our transportation, electricity, and heating requirements. In addition, the mineral residual from natural organic waste has the potential for fertilizer applications.

FUELS/OILS (RENEWABLE DIESEL)

The TCP can produce different quality fuels from different feedstocks. This is no different than traditional petroleum refining facilities. It has been confirmed by a large utility company that the produced renewable diesel can be run as a straight, unblended low-sulfur fuel oil. The first applications of TCP fuels are destined for use in boilers for heating and turbines for electrical power generation. The future holds significant promise to upgrade into transportation fuels.