REFORM EARTH TECHNOLOGIES, LLC
Waste Conversion to Clean Energy

Management Team

[redacted]

Industry
Biomass
Waste-to-Energy
Renewable Energy
Green Tech

Use of Funds
- Process Equipment
- Plant Construction
- EPC, Consulting, Startup
- Land and Building

Funding Format
- Debt
- Equity
- Hybrid

Law/Accounting/HR Firms
- [redacted]
- Contract Accounting
- Insperity

Executive Summary – Reform Energy Technologies (RET) plans to build, own and operate a commercial waste disposal and renewable energy production facility in Greenville County, South Carolina near the City of Greenville. The facility will be led by RET and will utilize technologies from BioCarbon Fuels (BCF) and Verdis Synthetic Fuels (Verdis). The facility will be commercially viable by collecting tipping fees for the environmentally safe disposal of municipal solid waste (feedstock) and the sale of various energy products, principally liquid fuels sold through National Fuel Distributors to the State of California collecting Renewable Identification Numbers (RINs) and California Low Carbon Fuel Standard (LCFS) premiums.

Discussions have been completed with the County for feedstock supply and purchase of liquid transportation fuels. Final contract language is being negotiated currently.

This facility will have an initial capacity of 350 tons per day of Municipal Solid Waste and residential yard waste, with the feedstock supplied by Greenville County with an initial CAPEX of $200 Million.

The design of the processing facility will be based on the RET Consolidated Liquid Fuels System to include:

A) Material Sorting System.
B) BCF Dryer/Granulator.
C) RET Pyrolytic Units & RET Gas Enhancement Modules.
D) Carbon Cooling and Packaging System.
E) Verdis Fischer Tropsch Gas to Liquids.
F) Fuel Storage and Ancillary Equipment.

The Greenville Facility is to be located in Greenville County, SC and, as envisioned, is designed to process and convert feedstocks that may include municipal solid waste, biomass, and wastewater treatment sludge.

An improved 20-to-25-acre plot with truck scales, warehouse, machinery shed, and office buildings is to be located at or near the Greenville County Twin Chimney Landfill. The property has required environment permits and zoning in place.

The build-out schedule for the initial facility is 18 to 24 months.

Expansion of the facility, using the RET modular design, can increase the capacity to ~2000 tons per day. This expansion capability is a key component in basic design concept. Total CAPEX $1.098 Billion.

The Mission – Reform Energy Technologies LLC designs, manufactures, integrates, installs, and maintains modular renewable energy technologies.

The RET System converts carbon-based feedstocks such as Biomass, Municipal Solid Waste (MSW), and numerous other waste products into energy products such as Synthetic Gas (Syngas), Renewable Diesel for Transportation & Sustainable Aviation Fuels (SAF) using the Verdis gas to liquids technology. Using other available technology, RET can also use the Syngas to produce Dimethyl Ether (DME) a propane substitute and is a growing "partial replacement" for diesel fuel in some applications as it is emission and particulate free.

RET's technologies are based upon our proprietary *patented devolatization technology* which uses a unique combination of pyrolysis and hydropyrolysis[1] that subjects the feedstock to temperatures in excess of 1,600F in an all-gas hydrogen rich environment. The extreme temperature breaks the molecular bonds of the volatiles found in the feedstock which are allowed to reform as high-quality energy products.

The Solution – RET has created an energy generating continuous feed reactor that produces clean energy with very low emissions while mitigating waste accumulation. The RET Pyrolytic system processes carbon-based feedstock in extreme heat within a continuous closed-loop system. The feedstock is broken down at a molecular level. The high-quality syngas produced by the process can be used to generate power, produce liquid fuels or be used directly for heating or manufacturing needs. RETs patented proprietary technology as well as other intellectual properties allows RET to process and handle pyrolysis gas in a clean single step manner. The only residue from the system is clean, stable, inert semi-activated carbon product, which can be sold as a commodity for industrial uses or as a soil amendment or carbon-sequestering landfill cover. Our process can deliver significant reductions in greenhouse gas emissions by eliminating the necessity for landfill of organic materials such as MSW and its attendant release of methane.

Patented Technology – RET's technologies are based upon our proprietary *patented pyrolytic devolatization technology* that subjects the carbon feedstock to temperatures in excess of 1,600F in an all-gas hydrogen rich environment. The extreme temperature breaks the molecular bonds of the volatiles which are allowed to reform as high-quality energy products. RET has taken a comprehensive approach to carbon conversion, renewable energy production and reducing emissions.

Competition – Almost all existing waste-to-energy and biomass facilities in the U.S. use large mass-burn technology combustion units that have come under increasing public and regulatory scrutiny as sources of unacceptable levels of hazardous and toxic emissions. There is a handful of newer gasification or pyrolysis technologies that are struggling to emerge, but each of them is in earlier stages of development than RET. RET has technological advantages over most of these competitors. These include our Gas Enhancement Modules, operating efficiency, and significantly lower emissions. Only 10-15% of the output energy is consumed to supply energy to the RET Unit. Emissions are also extremely low due to the closed loop nature of the RET process.

Revenue –The Greenville Project will allow RET to create a long-term stream of revenues (Pre-Tax ROI of 40%) for investors and Partners from the sale of various valuable high end energy products, principally liquid fuels as well as from tipping fees collected for the safe disposal of municipal waste.