

Introduction

DEVELOPMENT OF A WASTE-TO-ENERGY PROJECT

This proposal is submitted by Phinix, LLC, a Lexington based Minority Business Enterprise (MBE).

The experienced multi-disciplinary team, assembled by Phinix, LLC, has the broad experience, flexibility and capability to successfully design, build and commissions the Waste-to-Energy (WTE) plant for Lexington Fayette Urban County Government (LFUCG) and manage the resulting carbon credit benefits.

- Phinix, LLC - Project Applicant and Manager - Lexington, Kentucky (MBE)
- effENERGY, LLC – Project Developer - Technologist – Somerset, Kentucky
- DANA Technologies – Technology and Process Engineering- San Juan Capistrano, CA (WBE)
- Denham-Blythe Company, Inc. - Design and Build Construction Company, Lexington, Kentucky
- Linebach- Funkhouser, Inc. – Environmental Services Provider, Louisville, Kentucky
- First Climate – Carbon Management Service Provider – San Francisco, CA / Washington, DC

This proposal will be a joint venture among all the project members as they have agreed in principle to launch a new company with the key principals from each member's company. The majority of the companies involved in this proposal are based in Kentucky, making this a Kentucky project developed and built by Kentuckians. This plant is capable of providing as many as 35 full time local jobs in LFUCG which will include both skilled and unskilled labor.

This proposal presents an outline to build an advanced Municipal Solid Waste (MSW) energy conversion facility that will convert Refuse Derived Fuel (RDF) into electricity, usable heat and a reusable ash by-product. This environmentally sustainable process has been developed and commercialized in Europe as well as in the United States where the emphasis is to maximize the electrical generation efficiency while providing a sustainable and environmentally conscious installation. The technologically feasible and commercially demonstrated system is a thermochemical conversion process and relies on successfully proven and readily available equipment. This 10 acre project is based on a daily feed rate of 500 tons per day of RDF resulting from 1,000 tons per day of MSW which will be delivered to the Municipal Recycling Facility (MRF) from the waste hauler. The plant will be designed to produce approximately 30 MW of electricity which can be sold into the grid or used by local industry. This project envisions the proposed plant as an extension of the recycling plant, creating a smooth and seamless transition from delivered waste to the new MRF to the clean WTE facility. Phinix will use the latest tested and commercially proven and environmentally sustainable technologies to implement a waste gasification system to convert non-recyclable waste into electricity. The proposed engine-generators are quite robust and heavy duty power plant class equipment, making the system very efficient and requiring low maintenance.

Phinix, LLC

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This technology converts organic wastes materials into sellable electricity, thermal energy and usable by-products, thereby significantly minimizing the use of any waste going to landfill. By preventing the escape of methane-rich biogas generated at the Fayette County landfill, LFUCG will use a potent greenhouse gas that would have otherwise been emitted to the atmosphere, and generate carbon credits from this project activity. These credits have value in the current voluntary market for carbon credits in the United States and the credits may significantly increase in value as the United States