

We are pleased to announce that **Emerald Earth LLC** has become an official global representative of an advanced landfill waste to power technology so please review the following document for further explanation!

### **Introduction: Turning Landfill Waste into Power**

Even though humankind has progressed through the ages with all the modernization, technological improvements, and communication improvements, there remains an abhorrent condition that affects a great portion of our population. Huge amounts of solid waste and liquid waste effluent have accumulated primarily near the large population centers around the world. Clean water sources have been contaminated and air pollution from open air burning of huge solid waste piles both cause ill health and endemic disease problems for these regions.

The creator of this advanced energy technology has dedicated many years of research, design, development and testing of a highly refined technology that uses burnable solid waste materials to energize a variety of power systems. This technology burns materials cleanly and efficiently. They have overcome the problems of stack emissions with this technology, coupled with the latest technological advances in stack emission cleaning. Using the abundant solid wastes currently being cast aside, or buried in landfills, we can produce energy to power electrical grids, or to power water treatment facilities to produce copious amounts of clean water for public consumption. Many other applications are capable of being added to the process which produces clean energy.

### **Problems and Issues Identified**

Over the past several years the creator of this technology has been invited to consult with foreign and domestic governments regarding their technology and how it could be applied to their particular situations. A common theme is an abundant supply of solid wastes in the forms of litter, garbage, industrial construction and demolition waste, agricultural wastes and other materials that have been determined to be potential fuel for their energy plant. They have extensively studied each of the regions to which they were invited to determine

the best solution that would improve their conditions. Furthermore, we have found that insufficient supplies of clean water are common to these areas. In some areas, industrial effluent has contaminated rivers and streams. In other areas, shallow aquifers providing water supply are contaminated from improperly managed landfills where leaching has contaminated well water. Other sites we have visited do not have a consistent supply of electrical power, suffering power outages on a daily basis. This in turn reduces the ability of municipalities to effectively maintain proper sewage pumping operations, as well as their separate water supply system operations. Economic conditions are also degraded when businesses do not have an adequate electrical grid to supply their needs for manufacturing, services, etc. Some of these areas use alternative sources of power such as standby diesel electrical generators, which cause additional atmospheric pollution from their exhausts when the main grid is shut down.

### **Concepts of Proposed Technology**

Their mission to improve the earth is accomplished through the proper burning of waste materials producing the necessary energy to produce clean water. This implies the production of energy sufficient to power this type of plant, as well as being able to produce power in sufficient quantities to supply a power grid with electrical energy on a continuous basis. They have seen too many examples of accumulating solid wastes that are causing public health issues, as well as environmental problems. They know there are efforts from various world organizations trying to encourage the cleaning up of the environment, but have largely been non-effective. We propose a starting place – an initial project for the potential private business partner – to demonstrate how our technology will actually accomplish what so many have been talking about over the years, but have failed to implement. They believe a joint venture relationship will be the best method by which we demonstrate the effectiveness of our system.

Throughout their studies they developed pro forma models to indicate potential payback for investors. They have determined through market studies that a very high return on investment is possible and pays back the investors in a very short period of time.

International Joint Ventures (IJV) is used around the world to facilitate a working relationship across borders that create a win-win solution for both partners. The following list outlines the basic tenets that each partner needs to accomplish to make the project successful.

**Business Partner:**

- a. Provides financing for the project. As a business venture, partner will share in business revenues following construction and commissioning of the plant.
- b. Private business partner will provide the land to site the project.
- c. Private business partner will facilitate all the necessary permits to construct the project.
- d. Private business partner will coordinate all the licensing to conduct business operations in their country, in compliance with all laws, regulations and policies necessary.
- e. Joint Venture detailed provisions between the creator of this energy technology and private business partner will be determined in coordination with legal representation of both parties.
- f. Private business partner will share a percentage of revenues gained from production processes of the plant. Allocation of distributions, whether profit or losses, will be negotiated in the formation of the joint venture.

The creator of this energy technology:

- a. At the invitation and expense of the potential business partner, we will conduct a site investigation, analyze all the factors needed to locate the plant, and then determine plant size and the processes that best fit the customer's need.
- b. Following receipt of financing from the business partner as will be agreed upon in further detail in the joint venture agreement; they will design, construct, and oversee operations of the plant.

- c. They will help arrange for municipal solid waste delivery to operate the plant continually.
- d. They will provide oversight of all plant operations to ensure proper operations are continued as part of a contractual obligation as agreed upon in the joint venture.
- e. They will coordinate detailed provisions of the joint venture agreement through our legal representatives and private partner representatives.

### **Explanatory comments**

As stated before, the primary function of their energy plants is to use solid waste for fuel, thus reducing environmental impacts of accumulated materials. Secondly, as seen in all of their visits around the world, is the need for clean water for public consumption. They can build the facility to a specific capacity depending upon the quantity of “fuels” available in the area surrounding the plant. Each plant needs to be strategically located to facilitate powering its portion of the grid, enable municipal solid waste collection and other fuel collection, and provide clean water to its region. Once one plant is fully operational, and then a careful evaluation should proceed to ensure the next plant is properly located to maximize its effectiveness. A distinct advantage of multiple systems is the ability to collect wastes in the surrounding area for each plant. This reduces the need for large landfills. Each plant will recycle non-burnable wastes such as metals, glass, and other materials.

From their research on various sites around the world, we know the costs of landfill operations are expensive. Additionally, the societal impacts of pollution from uncollected solid wastes, and improper landfill operations are many. Water supplies become polluted from landfill leaching into the aquifers, community health issues from open burning of wastes strains the medical community treating for breathing problems, vermin infestations lead to disease spreading, and many other aspects deplete government resources. Through their technology, the business partners will greatly benefit in many aspects besides having a more consistent power generation capacity. Reducing the need for alternative power

sources such as the standby generators which emit exhaust fumes will be a great benefit.

As an example, a 10Megawatt plant for a specific area is presented to illustrate how it functions in powering a grid, as well as having follow-on processes that will enhance its productive capacity.

The proposed site will receive 500 tons daily of municipal solid waste, and/or other suitable burnable wastes from the surrounding region of the plant site. The wastes will be processed in a separate building and cleanly burned in our proprietary burner system. The resulting created heat will power a closed loop steam boiler system, providing steam power to a 10 Megawatt electrical generation system. This system will run 24 hours a day, 7 days a week providing continuous power to the electrical grid.

The burner technology is capable of burning agricultural wastes, municipal solid waste, and construction/demolition material that has been sorted to remove non-burnable materials. The burner exhaust is routed through proper scrubber and filtering systems to remove any particulates, gasses, etc., that escape the burning process.

After the steam passes through the generating turbines, it must be cooled back into a liquid state to be recycled through the boiler system. To cool this steam, we will install a proprietary water system which requires steam heat to properly operate. One of these processes is the cleansing and purification of water for public consumption. Our proprietary Water System will process large quantities of water for public consumption. It will clean water and pasteurize it to eliminate bacterial contamination. Then the water can be containerized or bulk delivered to the public as desired.

In addition, to eliminate the need to import certain food products and to further reduce steam temperatures, we would install mass cold storage units for food storage. The storage units allow for produce to be stored for extended periods of time. Multiple greenhouses would be installed to grow a variety of produce, much of which is currently imported. The greenhouse system controls the soil

conditions to achieve optimal production, as well as using hydroponic systems for production. Using the cleaned water produced means that the produce will also be clean, free of pollutants and other disease causing organisms.

### **Summary**

This unique business project is turnkey operations that will be managed under a joint venture agreement. It links a variety of components together, creating a production chain, cleaning the environment, and producing clean water, while using our own energy for a variety of marketable products.

The manufacturer of this groundbreaking energy technology has studied many different sites around the world, finding the common themes of accumulated wastes and lack of clean water, as well as an inconsistent supply of electricity to the public. This joint venture proposal accomplishes the major goals we have set out to achieve. For our business partners, it will provide the electrical power needed for consistent supply, as well as shared revenues from the follow-on processes each plant produces. The creator of this technology will provide the necessary guidance, oversight, and monitoring of these facilities to ensure that the construction, installation and operations continue for many years to come.

Depending upon the size of the plant, we can conduct a variety of downstream operations at each plant to reduce steam temperatures before recycling it to the boiler systems for power generation. The production of clean water for public consumption and greenhouse production, for example, will be of great benefit to the public. Each of these downstream operations is geared for profitability besides being of great benefit to the public and the economy.

The journey to a healthy environment begins with the first step. We all are charged with leaving this planet a better place than when we found it. The mission is dedicated to do exactly that as they have the tools and the knowledge to do just that. They want to bring these plants into operation as soon as possible. They are looking forward to developing a joint venture with the right company or government to make this world a better place to live and prosper!

**To learn more about this incredible business project please contact:**

Tony V. Iaquinto, Managing Director

Emerald Earth LLC Email: [info@emeraldearthllc.com](mailto:info@emeraldearthllc.com)