**CNFbiofuel, Inc.**

5038 Salida Blvd., P.O. Box 1316, Salida, CA 95368, USA

Phone: (209) 545-1661, Fax: (209) 545-3533, [info@CNFbiofuel.com](mailto:info@CNFbiofuel.com), www.CNFbiofuel.com

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To: Those interested in Torrefaction Technology and a practical Renewable Energy Fuel

Subject: Introducing CNFTM Torrefied Wood Pellets - General Letter

A new patent No. 8,217,212 has been issued July 10, 2012 on a new method of turning waste biomass into a useful fuel. The name of the patent is [SEQUENCING RETORT LIQUID PHASE TORREFACTION PROCESSING APPARATUS AND METHOD](http://appft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=3&f=G&l=50&co1=AND&d=PG01&s1=paoluccio.IN.&OS=IN/paoluccio&RS=IN/paoluccio).

The most practical large-scale renewable energy source is biomass. Biomass is generally burned for energy as dried wood, but this releases large amounts of pollutants into the air due to internal moisture and volatile organic compounds (VOC’s) released. CNF technology, liquid phase torrefaction, processes **incoming biomass in the form of wood pellets** to remove these pollutants and alter the molecular structure, which greatly raises the heat content.

This process results in CNFbiofuelTM, a solid fuel that is friable and hydrophobic with heat content close to that of coal. It is so similar to coal in handling and heat characteristics that it can be co-fired with coal without any equipment changes.

Torrefaction technology can go a long way toward solving the global energy and pollution problems by utilizing billions of tons of waste biomass. This biomass normally decomposes, releasing large amounts of methane and nitrous oxide into the atmosphere. By harvesting this waste biomass, these greenhouse gases are removed and the biomass is burned cleanly in a carbon-neutral cycle. Using this waste biomass for energy would produce a large amount of renewable energy each year, reducing fossil fuel use and its associated cost and pollution. Social and economic benefits include a cleaner environment, and jobs that will be generated by the new industries produced.

CNFbiofuelTM produces much less pollution than coal does, and generates about the same amount of power. Because of upcoming environmental regulations that restrict the amount of carbon produced, many coal-fired power plants desire a way to burn more cleanly. These power plants face an equipment upgrade that is costly and requires much down time. Torrefied biomass can prevent both the cost and the down time, because it can be co-fired in power plants without a retrofit.

Currently waste biomass is left to decompose, releasing greenhouse gases and wasting a potential energy source. This new processing technology allows for full and speedy utilization of this natural resource to produce clean, carbon-neutral electric power.

Previous torrefaction technologies have used gas convection heating to treat the waste biomass. Our process, which uses liquid immersion conduction, has many advantages over prior art methods. These improvements include:

* **Incoming biomass is pelletized before torrefaction processing.**
* Production is safer by eliminating explosive and fire prone torrefied dust.
* Processes 4 times faster with smaller, less expensive equipment.
* Processing equipment has few moving parts, making for long product life.
* Minimum manpower required with touch-screen remote control.
* 24/7 operation.
* Less energy use and lower cost.
* Closed system, almost completely eliminating air pollution.
* All gas emissions driven out of the processed wood are routed through a condenser.
* Some of the condensed emissions may have commercial value such as cedar oil.
* Large plants can use a small amount of pellets produced to power the processing system.
* Scalable system from very small to very large systems of over 60 tons per hour.
* Portable trailer mounted processing systems can treat biomass at site produced.
* Produces uniform feedstock.
* Pellets contain a small amount of heat treatment fluid for improved burning.
* Finished pellets can be considered “Carbon Offsets”.
* Torrefied pellets are durable and hydrophobic, making transportation and storage easier.

Thus far, our company has made several laboratory and small size processing units and test stands, which have been lab tested with promising results that show proof of concept. The next step is to provide larger pilot and demonstration units. The pilot size processing equipment could be turn-key, and sized so that it fits on a trailer. This size could produce torrefied wood for field testing and evaluation with commercial sizes to follow.

Applications for torrefied wood pellets are numerous. It is ideal feedstock for solid fuel, co-firing, gasification systems, and conversion to biodiesel. Torrefied wood pellets is also perfect for use in high efficiency Combination Heat and Power (CHP) systems. Oil companies, energy related companies, pellet mills and equipment manufacturers would also benefit from using torrefied wood pellets. CNFbiofuelTM has the capacity to produce clean electric power, which would be of benefit to universities, government agencies, and a variety of other entities. This technology is advantageous to the agricultural sector and equipment manufacturers as well, because it provides them a market for their waste biomass and equipment.

Our company, CNFbiofuel, Inc., is interested in working with others to bring this new emerging technology to the marketplace. This includes licensing or providing small scale demonstration or pilot projects that lead to commercial sized processing equipment.

Please contact us regarding your specific interest in this product, including type of biomass and application. See Attachment “A” for additional information.

John A. Paoluccio PE, CEO info@CNFbiofuel.com

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**CNFbiofuel, Inc.** Attachment “A”

**A practical and efficient method of converting wood pellets into Enhanced Torrefied Wood Pellets**

**Company Assessment – Business Vision**

Our business is developing technology that will create a sustainable energy source that is much more environmentally friendly than many currently on the market. We developed and patented the technology and plan to license it to firms, so that they can take over actual production and sale of CNFbiofuel™. This includes Torrefication equipment, Torrefied Wood Pellets, and Technology.

Applicant believes that CNFbiofuel™ is the most practical “near term” renewable energy solution to our global energy and pollution problems. It utilizes all the suns stored energy in biomass that has always been impractical to use due to the pollution generated when burned. This is reflected in the extremely small amount of biomass used for electric power generation.

This liquid “Conduction” Torrefication technology offers promise to very quickly put waste biomass to use and keep more fossil fuels in the ground. This is all accomplished with numerous side benefits including new jobs and businesses, healthier environment, keeping local money in the local economy, collecting all waste biomass and prevents it from decomposing and that is a total waste of energy and a major pollution source.

**Safe Harbor Statement:** This information on CNFbiofuel™ and or enhanced torrefied wood pellets includes certain “forward looking statements.” The forward looking statements have not been proven and represent the beliefs, future potential expectations, potential objectives and goals of the CNFbiofuel, Inc. management with respect to future events and financial performance. This information is based on assumptions and estimates, which are believed reasonable at the time such statements are made. However, actual results could differ materially from anticipated results. This includes information on emails, brochures, Internet sites, trade shows and correspondence. The Torrefied wood referred to is considered an emerging technology in renewable energy fuel.