Bioroot Energy

The Clean Fuel That Changes Everything

Environmental Sanity: At the bottom of empty trash cans

Imagine a world that no longer dumps its trash, garbage, toxic wastes and sludges into “sanitary” landfills or burns it in “waste to electricity” incinerators. Imagine electric power produced from coal via extra clean gasification with no smokestack emissions, augmenting the growing power of solar, tidal and wind farms. Imagine ships, trains, trucks, cars, planes and small engines burning cleaner, stronger alcohol fuels and emitting water vapor and CO2 instead of a cocktail of volatile organic compounds and toxic particulates. Imagine a world that steadily decreases petroleum dependence, where wars for oil are a distant memory.

Imagine a world where nothing “carbon” is ever wasted. It’s easy if you think beyond the ugly realities of today’s fossil energy economics and the rampant consumerism that threatens the fabric of life on Earth. Imagine a way of living through which people build quality of life by living, working, and traveling, in harmony with their social, cultural and natural environments. It’s not just wishful thinking: Everything you’ll read about higher mixed alcohol fuel in this article is proven, viable and achievable in the near term. It’s the game change clean fuel humanity needs to move forward to a renewables-powered world.

In 1776, Americans declared independence from British rule and launched a revolution to overthrow a tyrannical government. Little did America’s founders know that a new declaration of independence would become critical to America and the world in the early 21st century. With its many liabilities and dangers coming into sharp focus amid climate change, ocean acidification, rising seas and rampant pollution of the natural environment, fossil energy production, use and “lockin” is the unrelenting tyrant on humanity’s back. Petroleum oil pollution and methane/natural gas and coal emissions are the source of tremendous ongoing economic and environmental upheaval.

Factor in billions of tons of solid, liquid and gaseous carbon wastes from modern society’s increasing spiral into throwaway consumerism, and this onerous “tax” on society and the natural environment is today’s toxic, unsustainable, cradle-to-grave economy—resourced primarily with oil-based derivatives and fueled almost completely by fossil energy. Today’s unfolding environmental disaster is a direct result of humanity’s fossil energy addiction, and treating the world’s air, water and land as an open dump/sewer.

People throw away trash and garbage without thought about the consequences because that’s how mankind

has treated the environment for thousands of years. But what society throws away today has far more serious impacts. The depth of mankind's addiction to fossil energy becomes starkly apparent when we consider the reliance modern society places on oil, which extends far wider than just fuel applications. In the 150 years since the first oil well was drilled in Pennsylvania, millions of products developed from refining crude oil have become inextricably woven into the fabric of people's lives, most critically those inhabiting developed nations. Either directly or indirectly, the continuing tsunami of "black gold" literally oils the wheels of our lives. Just 150 years ago, toxic wastes, plastics, paints, petroleum-derived chemicals and other forms of inorganic waste didn't exist, and petroleum didn't fuel society's machines. The result is an ever increasing load of carbon wastes, emissions and air, water and land pollution at truly staggering scale.

Beijing, China: January 2013 air pollution termed "beyond hazardous."

Mankind is quickly poisoning itself out of a perfectly good planet with its addiction to fossil energy. This is why we have global warming. This is why Beijing is suffocating in its own emissions, and why Salt Lake City often has the dirtiest air in America. This is why more and more people will have some form of cancer in their lifetime. It's the reason 45 cents of every dollar Americans spend on gasoline and diesel fuel goes to OPEC countries. It's the reason the oil industry is turning to ever riskier forms of offshore drilling in deep water platforms, and extracting bitumen oil from Canadian tar sands, the dirtiest of all petroleum sources. It's why fracking and horizontal drilling are here to stay. It is also why America spends over half its annual budget on the military. And to top off the devastating effects of oil dependence, millions of poor people go hungry because a significant percentage of the USA's corn crop is being turned into ethanol fuel each year. As the world's biggest consumer economy, America's dirty energy "leadership" has helped other countries to follow in its footsteps, and our chief cultural export is rampant consumerism fueled by a near complete disavowal of long-term consequences.

What about Biofuels?

What's missing in the world of renewable energy? What's missing is a clean liquid fuel that is profitable to produce in all areas of the world and can be produced from society's wastes. There are few viable substitutes for liquid fuels when it comes to moving people and goods around the planet. Natural gas-powered vehicles require expensive retrofits and have limited fueling infrastructure, which limits their use to "capture" fleets such as taxis, buses and municipal vehicles. Electric cars are another alternative, but the vast majority of the transportation world uses energy-dense liquid fuels almost exclusively. Ships, trains, planes, trucks, most cars and small engines all require liquid fuels. But it doesn't have to be a toxic "float-on-water" oil fuel or a fermented, crop-based alcohol fuel such as ethanol that takes food from the mouths of hungry people or confines the opportunity to a specific set of "carbon feedstock" producers, such as corn farmers.

The "Biofuels Are Bad" rap is thus far richly deserved. No biofuel to date has solved more problems than producing and using it creates. No current biofuel, such as ethanol or biodiesel, has ever proven profitable to produce without government support. Biofuels such as ethanol or butanol that use food crops (corn, sugar cane) and require intensive fermentation cycles have serious food price and land use issues, requiring planting, watering, fertilizing and pesticides and insecticides which run off into rivers, causing "eutrophication" dead zones where these rivers empty into oceans. Oil-based biofuels produced from algae or french-fry grease simply recreate many of the problems of petroleum oil, and are merely another crop-based approach that will never be scalable or profitable. The bottom line: No current renewable fuel is capable of scaling up to power all types of gas and diesel engines.

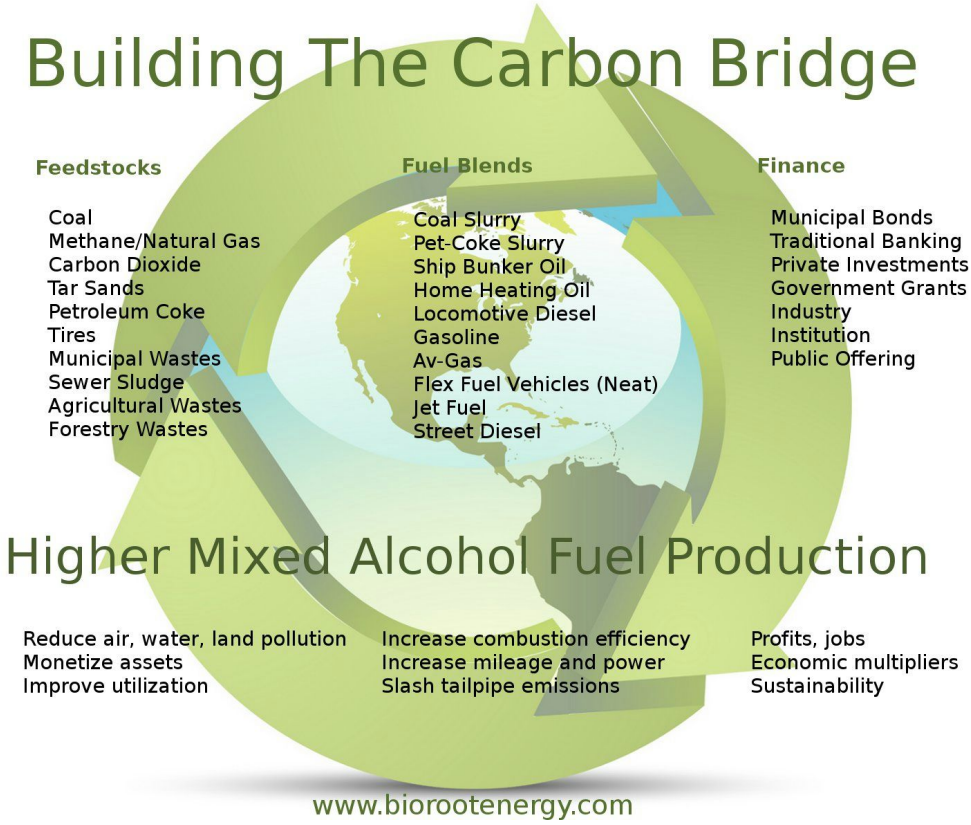
What about hemp-based fuel? It sounds like a good idea until you realize it's just another crop, and it produces oil-based "float-on-water" fuel. The last thing the environment needs is more oil-based fuel, regardless of the source or how "clean" it is. If it floats on water when spilled, it's not the right stuff.

What about hydrogen? Yes, it's true that hydrogen can be easily produced, but there is no infrastructure to support it in the marketplace, and almost no vehicles equipped to use it. There is simply no viable substitute for liquid fuel.

Cradle-to-Cradle Energy and Environmental Opportunity

Look in your trash can or visit the nearest landfill and take a good look at what you see. What people think of as trash is actually stored energy that can transform everything we know about life on Earth, including transportation, waste disposal, our natural environment and global economics. What's needed is a profitable, sustainable and responsible means of converting society's solid, liquid and gaseous wastes and fossil carbons (coal, methane, CO2) into clean liquid fuel that doesn't pollute, and doesn't require crops or any changes to vehicles, fueling infrastructure or consumer behavior.

Higher mixed alcohol fuel is a new, water-soluble and completely biodegradable liquid fuel formula that powers any gasoline or diesel engine without modifications. It's a powerful, clean blended alcohol fuel formulat that not only powers mankind's motorized conveyances, producing higher mixed alcohol fuel directly addresses mankind's Achille's heel: using the atmosphere, land and water as a dump for its solid, liquid and gaseous wastes. Higher mixed alcohol fuel can be profitably produced from any solid, liquid and gaseous carbon feedstocks: Municipal solid and liquid wastes, sludges, biomass, coal, methane and even power plant smokestack CO2.



Building The Carbon Bridge: Mankind's Destiny to Cross Over

Think of higher mixed alcohol fuel production as a complete "carbon-bridging" pollution solution connecting both ends of the cradle-to-grave economy into a complete circle of carbon recycle and reuse, producing the world's cleanest, strongest and most profitable alcohol fuel. Building and crossing this carbon bridge is the step humanity must take to avoid the worst of climate change, reduce pollution, create sustainable economic opportunities, and evolve as a species.

What is higher mixed alcohol fuel? It's a proprietary fuel formula developed, patented and licensed by Standard Alcohol Company of America, Inc.(SACA), consisting of a formulated blend of C-1 methanol through C-10 decanol simple n alcohols. Bioroot Energy's goal is to be among the first licensed producers of this disruptive new fuel formula. In fuel market terms, it's a patented 138 octane, EPA registration approved "oxygenate" alcohol fuel, approved for blending and neat use in all gas and diesel engines, and turbines, from ships, trains, planes, trucks and cars to small engines, with none of the liabilities of ethanol or petroleum fuels. Higher mixed alcohol fuel catalysis is a continuous 24x7 gas-to-liquid (GTL) fuel synthesis process that works efficiently, profitably and cleanly converting all types of solid, liquid and gaseous carbons into clean, powerful high octane fuel that powers all gas and diesel engines.

Has higher mixed alcohol fuel been commercially produced yet? No, which is why people concerned about the enviroeconomic mayhem of fossil energy need to know more about it. There is a world of promise waiting beyond single alcohol fuels, such as ethanol or methanol.

Who can produce this fuel? Cities and landfill owners with large volumes of solid and liquid wastes and

biomass can produce higher mixed alcohol fuel in “bioregional” projects. Coal and gas companies can produce it. Oil refiners can produce higher mixed alcohol fuel from methane gas derived from oil drilling, and gasify their petroleum coke, a solid byproduct of oil refining. Industries that produce large amounts of waste, such as paper companies and timber companies, can produce it.

What’s holding this new fuel back from commercial production? Lack of political, investor and consumer awareness and capital support. We spend a lot of time and money educating people who “care” or who “might have money to invest” and it goes in one ear and out, largely because everyone (literally) is locked into a consumer or “risk averse” investor mindset. Few investors to date are willing to put money on the line. Everybody’s waiting for somebody else to build the first project. It’s not easy being first.

Turns out it's not so much a money problem or technology problem holding this great clean fuel back. It's primarily a social problem. It’s a phenomenon known as “diffusion of social responsibility” driven by mindless consumerism. Everyone wants to do the right thing. But everybody’s also burning fossil energy and thinking their individual emissions don’t matter. Everybody’s tossing their trash in the can. People and businesses are using the atmosphere, land and water as an open sewer for free and it all adds up to “business as usual.” Everyone who drives a motor vehicle is "investing" in filling their tanks with the very toxic substance (petroleum) that is wrecking the environment. Virtually all of society's energy dollars are going to oil, natural gas and coal companies, and almost 10 percent of all liquid fuel dollars in the US are going to to ethanol producers. There is little renewable fuel opportunity available to society and industry outside of the US corn belt.

Want to save the planet? Stand your ground. Own the outcome. Support groundbreaking clean fuel projects that will immediately begin to help the environment and stimulate the economy by reducing carbon emissions, creating good jobs, new businesses, and producing a new clean fuel with such promise to do good for mankind and the natural environment that it is nearly impossible to overstate. It’s an opportunity so big and powerful that it’s like looking at the Sun. Which is why most people squint!

Take on the responsibility of becoming aware of your own actions and responsible for them. What if you and a million other people decided to stop being rote consumers and started thinking like producers? What if people began donating the cost of 1 gallon of gas to turn on the Sleeping Giant of Alcohol Fuels? We “the people” have a planet to heal, and the money that will be made will be a reflection of a job well done. If we upgrade mankind’s knowledge of what's achievable in the near term, we can begin to fix the environment. Not until.

The higher mixed alcohol fuel revolution will begin when communities and private companies such as Bioroot Energy raise the required capital to build higher mixed alcohol fuel production facilities near landfills to turn waste carbons (trash, biomass, sludges, etc., and fossil carbons such as coal, natural gas, CO2) into clean, biodegradable fuel, which creates jobs, new opportunities, and hope for its populace, all of whom want to do the right thing by their world.

America is credited with initiating a political and economic restructuring of Western society through the American Revolution. Could the country that unleashed fossil energy on the world be the first to implement radical ways of dealing with the damage it has caused and ecologically restructuring society in a 21st Century Green Energy Revolution?

There’s nothing holding back the higher mixed alcohol fuel revolution—except societal awareness and the individual’s will to be part of the solution we all want to see. Everything it takes to launch this revolution is

hiding in plain sight, with abundant resources as near as the nearest trash can, landfill, methane flare, coal bed or forest. The world is running out of excuses to act on climate change and pollution, but we will never run out of carbon building blocks to produce the world's cleanest, strongest and most profitable liquid fuel. Understanding this on a personal level and taking action is the first step. Investors will wake up to the opportunity when enough people focus on doing the right thing by our world and demand action from governments, financial institutions and their own communities.

What fuel can every person, and every city and region of the world, produce—and sleep well knowing they've done a very good thing by their families, communities and this world? There's only one carbon-bridging pollution solution: higher mixed alcohol fuel.

Help turn on the Sleeping Giant of Alcohol Fuels:

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