

EcoGlobalFuels

renewable sustainable energy transport fuels



Once in a lifetime you might come across a project that will **dramatically change the way we do things...**

Renewable

Cost Effective

Carbon Neutral

Transport Fuels

Excellent ROI



We are creating

- Renewable
- Cost Effective
- Carbon Neutral
- Transport Fuels
- Excellent ROI

We are producing Solanol™

- All alcohol fuels from only natural earth friendly elements
- DME and Butanol
- MTBE
- Ethanol and Methane
- Aviation Fuels
- Pure Oxygen

We are only using

- Sunlight (solar panels) also GeoThermal and Wind power for DC generation
- Water (hydrogen and oxygen)
- Unique cell electrolysis configuration to produce hydroxy energy
- Catalyst
- CO² green house gases extracted from the atmosphere!

What is Unique about Eco Global Fuels

- A unique method of Electrolysis to produce hydrogen and oxygen from water that is the most efficient – and cost effective – than any other method on this planet, and the most environmentally friendly way of production – only using the sun and the inherent energy of water.
- Because our technology relies on carbon dioxide emissions to convert hydrogen into fuel, we are in a unique position to assist all industries looking to reduce their carbon footprint and at the same time- producing renewable zero carbon transportation fuels
- Hence at the same time reducing carbon dioxide emissions and saving green house gases and nations / industry billions of dollars
- The process produces oxygen as a byproduct (which is also sold) and runs entirely on renewable energy sources: i.e., solar, hydro, wind, and geo-thermal.
- WE USE EXISTING INFRA STRUCTURE
- We immediately convert the hydrogen we produce into an alcohol-based liquid which allows Eco Global Fuels to utilize existing infrastructure for the safe and cost-efficient transportation of our products.
- Eco Global Fuels constitutes a true “win-win” scenario – not only for the environment, but for existing carbon-based industries looking to reduce their greenhouse gas emissions.
- A variety of synthetic renewable solar alcohol fuels (under the brand name Solanol™) will be integrated into the existing petroleum infrastructure.
- Often this is simply added to existing fuels. We represent NO competition to the oil/ fuel industry, in fact, they need us – as governments around the world have insisted on renewable energy sources being add to fossil fuels
- At Eco Global Fuels, our real bottom line is protecting the environment.

We view the environment as the ultimate good investment.

- As good as the profits and ROI will be, even GREATER SATISFACTION will come from aligning with the kind of change that will save the planet from pollution and global warming.
- The market potential for this industrial application of green fuel production is staggering.

NOTE: These and other demonstrable facts regarding chemistry and economics are available upon signature of the non-disclosure agreement.

We have developed a method of producing DME, Butanol, Ethanol and Aviation grade fuels by combining our Hydrogen production (the lowest cost hydrogen available) with carbon dioxide (waste gas) emissions.

What is Unique about Eco Global Fuels

Things to think about very carefully

- In addition to being costly, the production of gasoline and other fossil fuels takes a devastating – and unsustainable – toll on the environment
- In the United States alone, emissions from automobiles and coal- and natural gas-fired power plants add up to an annual 6.5 billion tons of greenhouse gases.
- Clearly, The United States, UK, EU, Russia, India, China, South America, Australia and THE WORLD needs a bold plan to free their economies from a dependency on polluting fossil fuels.
- Eco Global Fuels offers an efficient – and practical – model for doing so.
- Eco Global Fuels is convinced that a massive switch to solar/geothermal/wind power combined with the Eco-Global Fuels process is the only logical answer.

The person who says it cannot be done should not interrupt the person doing it.

Chinese proverb

More to Read

- The principals of EGF have been involved with the research and development of our clean fuel technologies for over 20 years.
- Unlike other carbon-neutral initiatives, Eco Global Fuels is designed to work in partnership with oil- and coal-based industries by converting their harmful emissions into a renewable source of energy. In addition to helping the environment, we have the capability to save these industries billions of dollars in regulatory fines by reducing their carbon footprint. We are the only cost effective and ROI way for polluting industries reduce their production of greenhouse gases in accordance with the terms of the Kyoto treaty.
- This project is revolutionary, nation building, exportable, a global first in science-concept terms, and will require because of climate change, all aspects of institutional and industrial capitalism to develop and pledge themselves to responsible corporate citizenship.
- With your help, we at Eco Global Fuels can further our efforts to deliver the ROI that you and future generations can truly bank on: a renewable source of energy and a renewed environment.
- We are seeking private seed investor(s) with an environmental and a philanthropic bent that is visionary and serious about climate change-and carbon dioxide emissions-and making money, prior to Eco Global Fuels entering towards a public float.

In the future, the production of liquid transportation fuels will be sustainable, affordable and ecologically sound.

Thanks to Eco Global Fuels, that future is NOW.

These technologies are fully documented and demonstrable to those willing to sign our non-disclosure agreement

CONTACT: ROGER GREEN ECO GLOBAL FUELS USA, LLC Renewable Fuels Production

Email: ecoglobalfuels@earthlink.net

New York Office: 1-212-421-2768

Introduction

Now more than ever before, the global energy sector has access to a variety of green technologies such as solar panels, wind turbines and hydro power. While renewable and carbon-neutral, these technologies have never been applied to the production of liquid transport fuels. **Until now.**

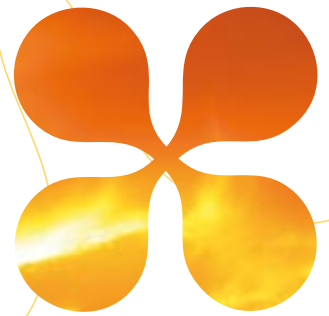
Welcome to Eco Global Fuels, the world's producer of 100% renewable, alcohol-based transportation fuels. Decades of research have enabled us to harness the power of water and sunlight for the manufacture of hydrogen in the most efficient, inexpensive and ecologically sound manner ever created. When combined with carbon dioxide extracted from the atmosphere, this hydrogen is immediately converted into an alcohol-based liquid fuel for safe and reliable transport.

Eco Global Fuels has developed a suite of clean technologies that will revolutionize the production and distribution of liquid transport fuels. These include:

- A method of electrolysis to produce hydrogen and oxygen from water that is the most efficient and cost-effective of its kind
- A method of extracting carbon dioxide emissions from the atmosphere
- A method of combining normally vented carbon dioxide with hydrogen to produce energy-efficient liquid alcohol transportation fuels. Under the brand name of Solanol™, these renewable, sustainable, and 100% carbon-neutral transportation fuels will be designed and hydrogenated specifically for all sectors of the transport industry.
- Like gasoline, Solanol™ can easily be utilized into the existing marketing and technical infrastructure
- The same amount of carbon dioxide extracted from the atmosphere to make Solanol is emitted back into the atmosphere via combustion.. balanced imitating nature as in a capture and recycled eco-loop which makes Solanol carbon neutral. A one-of-a-kind recycling fuel matrix model that imitates nature. When Solanol™ is combusted and the emissions are released, the balanced quantities of oxygen, water and carbon dioxide are recycled back into the atmosphere (as opposed to fossil fuel feed stocks, which consist of harmful greenhouse gas emissions).

But what makes our manufacturing process truly revolutionary is the fact that we can economically utilize concentrated carbon dioxide as feedstock extracted from the atmosphere to create carbon neutral liquid fuels... Solanol.

Eco Global Fuels is directly benefiting not only the environment but all industries wishing to reduce their production of greenhouse gases in accordance with the terms of the Kyoto treaty and the up coming the decarbonization debate set down for Copenhagen Dec 2009.



Solar energy potential is off the chart. The energy in sunlight alone striking the earth for 40 minutes is equivalent to the US energy consumption in a year. The goal then is to properly convert that sunlight into fuels which our existing infrastructure is readily able to utilize.

Applications

We have a number of projects in the pipeline at Eco Global Fuels, but our primary goal remains the production of renewable, sustainable, and carbon-neutral transportation fuels. To demonstrate the potential of our clean technologies, we are also developing:

- Design and hydrogenate specific Solanol alcohol fuels for specific industrial needs eg, air, sea transport.
- Ecological and technological assistance to the coal and commodity oxygen industries to become “cleaner” by reducing their greenhouse gas emissions.
- Generation of electricity.



solanol

The Technology

Sunlight + CO₂ + Catalyst + Hydroxy = all sorts of high power fuels.

Sun + Water + Carbon Dioxide = balanced carbon-neutral alcohol fuel (Solanol)

5 gallons of water + 15lb of CO₂ will produce 1 gallon Solanol + 17lb of enviro-liquid oxygen.

The discovery is known as “hydroxy hydrogenation” and is our invention. It is visible, measured and evidence based. Realized.

The heart of the “hydroxy hydrogenation” process is the electrolytic cell.

The Eco Global Fuels Hydroxy electrolytic cell via design and configuration is unique, demonstrable, and is evidence based and has never been commercialised. It is new, obvious, and signals to all at large as a significant device and as a technology a major entry in global fuel economics.

The hydroxy electrolyzer is a world first in electrolysis systems.

What are the effects of each energy exchange?

What efficiencies and losses are involved?

Solar sun light energy	= 100%
Photovoltaic DC output @ 20% efficiency	= 20%
Efficiency of electrolysis @ 60% efficiency	= 12%
Efficiency of 2(CO ₂) + 6(H ₂) Solanol catalyst 20% efficiency	= 2.4%
Overall efficiency	= 2.4%

This 2.4% overall efficiency is attributed to energy derived from the sun, which is free. Therefore it is not the overall 2.4% efficiency of the above fuel production, that is the governing factor; it is the cost efficiency of the technological hardware to produce both Solanol and commodity Enviro-oxygen as a commercial byproduct.

The question

Suppose, “asks Eco Global Fuels (EGF), if some energy research organization could invent and demonstrate a method to produce cheap and clean sustainable enviro commodity hydrogen and enviro commodity oxygen safely and economically, then it would be possible to produce carbon neutral liquid fuels for all transportation systems, without using hydrocarbon feed stocks” as fuel to initiate the process.

The statement

The EGF invention and technology leads to a safe, clean, cost effective and cost efficient industrial supply of enviro commodity hydrogen with enviro commodity oxygen, this major breakthrough can now sustain all mankind’s energy needs, which pioneers a new environmental chemistry in significantly decarbonizing current global greenhouse emissions.

*Don't ask
what the
world needs.
Ask what
makes you
come alive,
and go do it;
because what
the world
needs are
people who
have come
alive.*

Howard Thurman

The Technology (Continued)

The answer

After decades of research Eco Global Fuels has replied by developing an energy-fuel process model and prototype to harness the power from any renewable energy source such as sunlight, and with water for the manufacture of solar enviro hydrogen safely in the most efficient, inexpensive and ecologically sound manner. When combined in situ with concentrated carbon dioxide extracted from the atmosphere, this hydrogen is converted into a cost-effective liquid carbon neutral transport fuels with better engine economy and performance than that of conventional fossil gasoline, but, the equivalent kilometer range of conventional gasoline.

Efficiencies

The use of alternative energy sources (solar, geothermal, wind, hydro) is what makes the Eco Global Fuels production model so cost-efficient. Of these sources, solar power has the highest potential. Just 40 minutes of sunlight can provide as much energy as the United States consumes in a year.

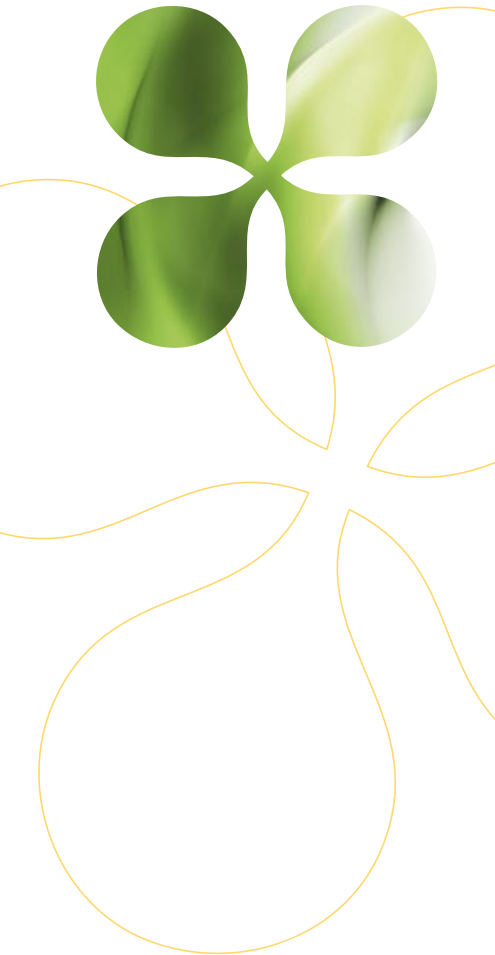
How do we convert solar power into fuel? By using photovoltaic cells as the energy input for the electrolysis of water to create hydrogen, which we then combine with carbon dioxide to create our alcohol-based transportation fuels. Economic projections indicate that the current photovoltaic cell costs of US\$4 per watt will drop to US\$1 per watt by 2015 or sooner. The total running costs of a photovoltaic cell farm come to only US\$0.006 per kWh, while those of a traditional coal-fired power station come to a whopping US\$0.03 per kWh.

NOTE: These and other demonstrable facts regarding chemistry and economics are available upon signature of the non-disclosure agreement.

What is electrolysis?

The idea of electrolyzing water is anything but new – Michael Faraday established the basic laws of electrolysis in 1833. In basic terms, when an electric current is passed through water, the water is dissociated into its two constituent elements: hydrogen and oxygen. These are released as gases, in the same proportions as they are combined in water molecules. Two volumes of hydrogen are produced for each volume of oxygen.

Although electrolysis has long been used by captains of industry like General Electric, Dnora, Teledyne, and Life Systems for the production of hydrogen and oxygen, remarkably little innovation has taken place within the design of electrolysis systems. A major change in electrolysis came in 1971 when Professor Yull Brown's design improved in a unique way upon the Hennessy cell, which was diminutive, inefficient and suited only to the jewelry industry. Professor Yull Brown's electrolytic cell constituted a major breakthrough in that it was a safe, efficient industrial model for producing a gas mixture of hydrogen and oxygen. This gas mixture is known in-house as hydroxy. It has never been commercialized.



Opportunity and Investment

The principals of Eco Global Fuels, have been involved with the research and development of our clean fuel technologies for over 20 years.

These technologies are fully documented and demonstrable to those credential investors willing to sign our non-disclosure agreement.

While the blueprint for our fuel program is firmly in place, equity seed capital is necessary for advancing this fuel format forward.

Eco Global Fuels is currently seeking green-minded investors to help us realize our goal of delivering renewable liquid transportation fuels at a competitive price – and reducing the carbon emissions that threaten our planet.

As an investor in Eco Global Fuels, you will play a crucial role in:

- Reducing carbon dioxide emissions in the atmosphere
- Reversing the greenhouse effect
- Improving the quality of the air
- Reducing global dependency on the planet's dwindling supply of fossil fuel.
- Producing transportation fuels that are sustainable, renewable and carbon-neutral
- Priming an emerging market for exponential growth

This breakthrough science is mature with technological-marketing substance, is evidence based, and cost effective and offers to a discerning cornerstone equity principal or a corporate consortium, to take tiered private placement investment positions in the industrial startup and commercialization of a synthetic renewable carbon neutral transport fuels program. Transparent and credential entities, entrepreneurs, individuals with introductory and the relevant market profiles or proposals who wish to know more are invited to tender their interest to EGF.

The technology is here. And the time is now. With your help, we at Eco Global Fuels can further our advance to deliver an ROI that you and future generations can truly bank on: a renewable source of carbon neutral fuel that will pioneer a new environmental chemistry that will over time change minds, methodologies markets, and significantly de-carbonizes industrial society.

Do you have a budget of projected costs?

Yes, we do – complete with timelines and stages of completion. Credential and transparent principals who sign the non-disclosure agreement are free to review it.

What is the present status of Eco Global Fuels?

EGF has constructed a hydroxy electrolyzer that is cost-efficient. Our patent attorney, has verified that the cell configuration is unique, novel and patentable internationally (this report is available to those who sign our non-disclosure agreement). We are ready to scale the project up to the proof of concept pilot stage – hence our need for equity capital.

*When we
honor Nature,
Nature
honors us.*

William Tara

Market Potential

The market potential for the industrial application of green fuel production is staggering.

- By 2010, the consumption rate of crude oil is estimated to peak at 110 million barrels per day. In terms of liquid fossil hydrocarbon consumption, this translates to a daily rate of 21.653 billion liters.
- Meanwhile, a prototypical Eco Global Fuels plant is designed to produce 1.16 billion liters per year of Solanol™. The estimated ROI for a plant of this size is 17-21 percent, yielding annual profits of approximately US\$3.5 billion.
- An estimated 9,823 Eco Global Fuels plants would be needed to produce 31.216 billion liters per day of Solanol™. 9,823 plants would yield annual profits of approximately US\$343,801 billion.



The Green Energy Boom

Investments in clean technologies topped US\$5 billion in 2007 – a massive 44 percent increase from the previous year. Energy generation companies were the primary recipients, attracting financing of US\$2.7 billion. Economists have forecasted a continuation of this trend in the years to come, citing alternative energy generation industries such as solar, hydro, wind, and geothermal as the focus of venture funding as well as incentives and grants generated by the Obama administration.

The problem with a number of carbon-free energy initiatives is that they are not 100 percent renewable. In addition to being unsustainable from an environmental perspective, the use of cellulose products such as corn for the production of ethanol is inflationary and, in the case of third world nations where hunger is epidemic, potentially crippling. The Eco Global Fuels model for alcohol production is more cost-effective than that for producing corn-based ethanol, yielding a higher ROI without subsidies and without having any effect on food prices.

Another problem with many of these “solutions” is that they frequently cannot be integrated into the current energy transport infrastructure. The fact that we immediately convert the hydrogen we produce into an alcohol-based liquid allows Eco Global Fuels to utilize existing infrastructure for the safe – and cost-efficient – transportation of our products.

Protecting the Environment

At Eco Global Fuels, our real bottom line is protecting the environment. Given that nature itself is the infrastructure on which the future clean energy economy is built, we view the environment as the ultimate good investment.

In this new interconnected global world, EGF sees a larger theme emerging: Environmental science is now on the agenda. This science is now the economic geopolitical engine for global sustainable growth.

Nature's boardroom with its atoms, molecules and ions are better feed stock elements for humanity than those of fossil hydrocarbons. (it has always been for the renewable energy-fuel sciences a question of commercial vested interests, political expediency, and the financials in commercializing these systems. Not any more.

This invention introduce to the free-market economy and the global body-politic in energy economics, a potential major player within the global warming and climate change debate.

This invention in both product and process terms is mature and has technological substance that is timely, sustainable and cost effective...that respects the sanctity of nature with its pristine elements such as the sun, geothermal, wind, air, and water for all our future energy, fuel, and food needs.

How much carbon dioxide does Solanol release into the atmosphere compared to other fuels?

Solanol releases approximately 10% less carbon dioxide if normally vented carbon dioxide emissions are utilized than petroleum. Burning 22MJ per 1lb or 1.22 pints of benzene (100% petrol) would yield 15oz of carbon which equates to 55 oz of carbon dioxide emissions. Meanwhile, burning 22MJ per 1.62 lb or 2 pints of Solanol (100% alcohol) would yield 13.5oz of carbon which equates to 50 oz of carbon dioxide emissions.

The same amount of carbon dioxide extracted from the atmosphere to produce Solanol is emitted via combustion imitating nature as in a capture, store and recycled eco-loop, which makes Solanol carbon neutral.. balanced.



We are not here merely to make a living, we are here to enrich the world and we impoverish ourselves if we forget this errand!!!

Woodrow Wilson

EGF and Solar Energy

Solar power is experiencing a global explosion. Concerns over climate change and rising energy prices have driven billions of dollars into developing the efficiency and variety of technologies that capture energy from the sun. From new photovoltaic panels to advances in materials, manufacturing processes and solar tracking, the entire production chain is being reconfigured.

By converting a mere 2.5% of the 4,500+ quadrillion BTUs of solar radiation received annually by a 250,000-square mile area of non-arable, non-privately-owned land in the Southwestern United States into electricity, you would match the country's total electrical consumption in 2006.

In addition to having access to the most inexpensive silicone-based solar panels on the market, Eco Global Fuels knows for a fact that 100% of the aforementioned 250,000-square-mile area is suitable for the construction of solar-powered synthetic renewable fuel plants. How would we convert solar power into fuel? By using photovoltaic solar cells as the energy input for the electrolysis of water to create hydrogen, which we then combine with atmospheric or normally vented carbon dioxide to create alcohol-based transportation fuel Solanol.

We project that the current rate of \$4 per watt of solar energy will reduce to \$1 per watt by 2015 or sooner (not including installation).

Current competitive Models

Listed below is a comparison of the construction costs per watt of various types of energy plants, including photovoltaic farms.

- Construction cost of a nuclear reactor = \$1.6 per watt.
- Construction cost of a coal-fired plant = \$1.5 per watt.
- Current construction cost photovoltaic farm = \$ 5.8 per watt
- Projected construction cost photovoltaic farm = \$ 2.8 per watt

Global photovoltaic manufacturing principals guarantee an operational life span of 25 years, and while photovoltaic-generated electricity is only available for approximately 11 hours per day, the invention overcomes this time impediment by storing the sun's energy in a carbon-neutral alcohol fuel matrix to be used as fuel at night and or any other time.



“Clean-tech” investing topped \$US 5 billion in 2007. That’s a massive 44% rise on the previous year. Energy generation companies were the biggest recipients, racking up financing of \$2.7 billion.

EGF and Solar Energy (Continued)

The current industrial-sized power plant is 2000MW, and will be used as a guide and reference as return on investment (ROI) for each model listed below.

- **Cost of construction of nuclear reactor at \$1.60 per watt x 2000MW = \$3.2 billion**

Tariff rate of 7.5 cents per kW including maintenance equates to net yield of \$600 million per year.

\$3.2 billion = 5.3 years ROI

\$600 million

- **Cost of construction of coal-fired plant at \$1.50 per watt x 2000MW = \$3 billion**

Tariff rate of 7.5 cents per kW including maintenance equates to net yield of \$600 million per year.

\$3 billion = 5 years ROI

\$600 million

- **The current cost of a solar photovoltaic farm including installation at \$ 5.8 per watt x 2000MW = \$11.6 billion**

Tariff rate of 7.5 cents per kW including maintenance equates to net yield of \$550 million per year.

\$11.6 billion = 21 years ROI

\$550 million

- The 2015 projected cost of solar photovoltaic farm includes installation at

\$2.8 per watt x 2000MW = \$5.6 billion

Tariff rate of 7.5 cents per kW including maintenance equates to net yield of \$550 million per year

\$5.6 billion = 10.2 years ROI

\$550 million

- The 2015 projected cost of a photovoltaic farm including installation with the electrolytic hydrogenation process at 2000MW is \$7.4 billion. Therefore 2000MW will produce 132 million gallons of Solanol™ per year with 1.1 million tons per year of enviro-oxygen plus carbon credits including maintenance which equates to an annual net yield of US\$968 million.

\$7.4 billion = 7.5 years ROI

\$968 million

100 x \$968 million = 13% ROI

\$7.4 billion

This invention incorporates a synthetic Calvin Cycle that has been created by using recycled carbon dioxide to manufacture carbon neutral alcohol fuels. This 2000MW model will recycle atmospheric concentrated carbon dioxide to the amount of 1.02 million tons per year.

EGF and Solar Energy (Continued)

Atmospheric air at sea level in the year 1870, consisting of the following in percentages and weight:

CO₂/ 0.0290gr = 0.0290%

O₂/ 20.953gr = 20.953%

N₂/ 78.084gr = 78.084%

Ar/ 0.934gr = 0.934%

Total/ 100gr = 100%

Atmospheric Air at sea level in the year 2008, consisting of the following in percentages and weight:

CO₂/ 0.0360gr = 0.0360%

O₂/ 20.946gr = 20.946%

N₂/ 78.084gr = 78.084%

Ar/ 0.934gr = 0.934%

Total/ 100gr = 100%

Air volume per Litre @ S.T.P = 1.29gr

As calculated from the above, there has been a 0.007% reduction of oxygen in the atmosphere over the past 138 years. This amount will continue to diminish as excess carbon dioxide emission produced by fossil fuel combustion continues unabated.

What is the price comparison between solar-powered and coal-powered hydrogen production?

The invention has overcome the usual cost constraints of producing hydrogen by researching and developing the most cost-efficient electrolysis unit in the world. Our methodology for producing the necessary DC electrical energy to manufacture vast quantities of hydroxy gas is based on power derived from photovoltaic cells or any other form of renewable energy.

The current cost of photovoltaic cells is \$4 per watt, but according to our projections these costs will be reduced to \$1 per watt by 2015. Although the construction costs for a photovoltaic farm and a coal-based power station are not identical, the running costs of the former come out to be much less: \$0.006 per kWh compared to \$0.03 per kWh. Why? Because the coal-based power station requires continual coal as fuel to run, when compared with photovoltaic farms which run on sunlight – a free and now a renewable fuel source.

*A little
knowledge
that acts
is worth
infinitely
more than
much
knowledge
that is idle.*

Kahlil Gibran

EGF and Solar Energy (Continued)

How would the cost of Solanol™ compare to that of gasoline?

Currently, the price of gasoline ranges from US\$2.50-4.00 a gallon. In three years, Eco Global Fuels will be able to offer Solanol™ at US\$3.00 a gallon. This price does not reflect the sale of oxygen produced.

How much more cost-effective is the production of Solanol™ than the production of corn or sugar cane ethanol?

Approximately 70% more cost-effective.

Can Solanol compete if the price of oil comes down to \$2 to \$2.50 a gallon? Also, do you have a formula for computing your cost of production?

Yes, because 1 gallon of Solanol plus 17lb of enviro-oxygen at a cost of \$1.35 and when both commodities are sold, produce a profit of \$3.5 at current fuel and commodity-oxygen prices.

Most gas stations offer three kinds of gasoline. Will Eco Global Fuels only offer one kind?

No. A variety of synthetic renewable solar alcohol fuels (under the brand name Solanol™) will be integrated into the existing petroleum infrastructure.

Often this is simply added to existing fuels. We represent NO competition to the oil/ fuel industry, in fact, they need us- as governments around the world have insisted on renewable energy sources being add to fossil fuels

What is the average mileage of Solanol compared to gasoline?

For the average vehicle:

Solanol provides identical mileage to gasoline with a higher octane level.

Our designed mixed alcohol fuel, Solanol™, will provide the best carbon neutral combustion properties with comparable range.

*Whatever
you can do,
or dream
you can,
begin it.
Boldness
has a genius,
power, and
magic in it.
Begin it now!!*

Goethe

EGF and the Coal Industry

Can Eco Global Fuels help clean up the coal industry?

Yes, we can...and in a profitable way that constitutes a true win-win for both parties. There are over 640 coal and gas power plants in the United States alone that are in need of the right technology to deal with their carbon emissions.

How can the EGF hydroxy hydrogenation process put lipstick on the face of “clean coal”?

Eco Global Fuels (EGF) is modeled to work in partnership with natural gas and coal-based power industries that would have to be retrofitted and converted to enviro-oxygen fired to produce a concentrated fossil carbon dioxide flu gases.

The enviro-oxygen as a byproduct of the Solanol process is then combusted with coal or gas fired power stations instead of “air”, being the current practice.

Therefore the flu gases produced by coal and gas fired power stations using enviro-oxygen, will now consist of mainly fossil concentrated carbon dioxide that can easily be disposed of now, economically, and/or if necessary via a single desk carbon cap-trade permit utilized to produce Solanol.

The current cost of removing this fossil carbon dioxide component vented from the flu gases is a major technical-cost-deficit problem. This technical-cost-deficit is now overcome by introducing enviro-oxygen, to the combustion and emission stream to produce electrical power, making enviro-oxygen as a commodity a valuable by-product of the Solanol process.

This invention has the capability to save these industries billions of dollars in regulatory penalties by reducing their carbon footprint, or they will pay per ton for their emission behavior.

The licensing potential for such an arrangement is enormous, not to mention the resulting benefit to the environment

Are “clean” coal plants really clean?

In reality, there is no such thing as “clean” coal. Coal power plants emit carbon dioxide, the pollutant responsible for causing the climate crisis. A third of the United States’ carbon pollution now comes from about 640 coal/gas-fired power plants. And of the 70-plus proposed new coal power plants, less than a handful have plans to capture and store their carbon dioxide emissions. If these dirty plants are built, an additional 200 million tons of global warming pollution will be emitted by the United States each year.

Until coal and gas power plants are retrofitted and converted to enviro-oxygen fired instead of with air, to produce a concentrated fossil carbon dioxide flu gases, and stop releasing carbon dioxide into the atmosphere, coal will remain a major emission contributor to global warming.



EGF and the Coal Industry (Continued)

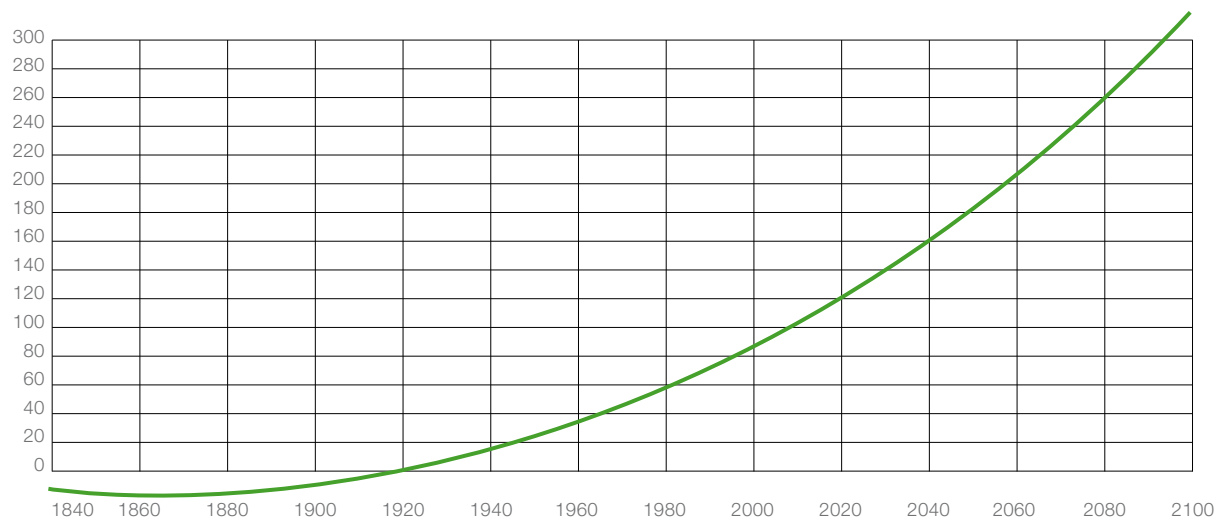
The cliché notion of “clean coal” as an oxymoron will remain so if the emissions of burnt coal are not addressed with feasible technological elegance, and plausible cost economics.

If the solution is not cost effective it is not doable. EGF to the rescue!

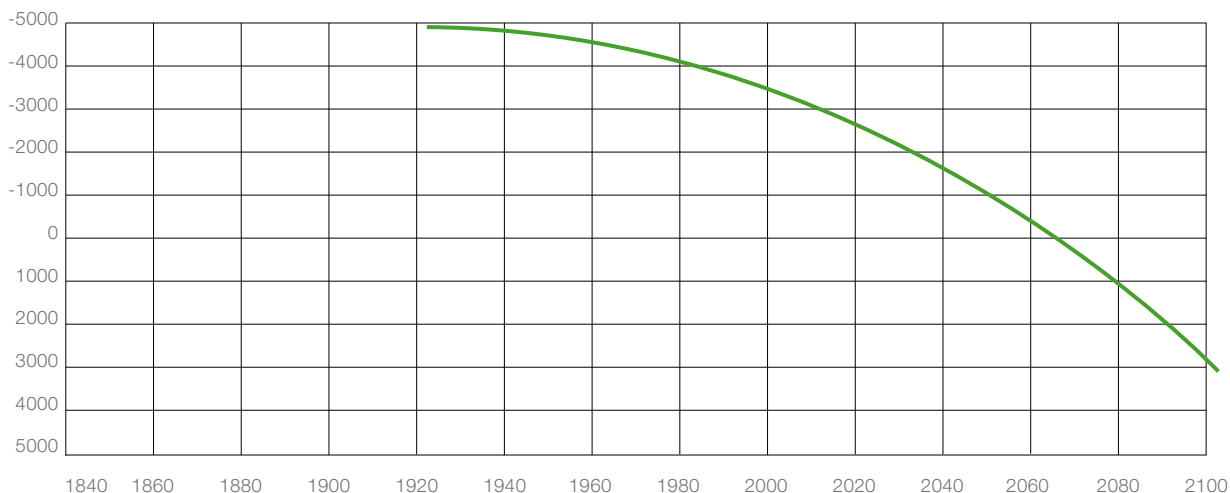
Are we depleting our crude oil reserves?

Yes. The following graphs illustrate the projected remaining world crude oil and shale reserves as well as their projected rate of consumption from 1920 to 2100. At the present and future calculated rate of consumption, a depletion of these reserves will occur by 2065. The graphs also indicate that our ability to maintain and increase production of crude oil and shale oil peaked in 2000.

Projected Crude Oil Consumption x Millions of Barrels per Day



Projected Crude Oil Reserves x Billions of Barrels



EGF and the Coal Industry (Continued)

The song is your soul. It is the spirit of the land. It must come from within. Sing loudly to show that you are indeed bravely alive and the land will become happy and plentiful. Sing softly and the chorus of many shall overcome you. The song of the caring heart will affect all those who listen and the people will come to live together in harmony with their land. The sound of no song is the sound of death. The land will then become barren. The people shall cry for they are indeed dead without their song.”

Dhakkan'guini: June 1938, Aboriginal tribal leader, Australia

What are the politics involved?

The United States, Europe, Russia, India, China, Australia and THE WORLD all need a bold plan to free themselves from dependency on fossil fuels. Eco Global Fuels is convinced that a massive switch to solar, geothermal, wind, and hydro power combined with our hydroxy process is the only logical answer.

High prices for gasoline and heating oil are here to stay. The United States and its allies are at war in the Middle East at least in part to protect their foreign oil interests. As China, India, and other nations rapidly increase their demand for fossil fuels, fighting over oil interests will continue to loom large on the horizon. Meanwhile, the United States alone is responsible for 6.5 billion tons of greenhouse gases per year – the devastating result of not only 325 coal-based plants and 315 natural gas-based plants but a plethora of gasoline-powered vehicles.

Given the new political climate in the United States since the induction of President Barack Obama, all signs point to Congress investing in a variety of green energy initiatives, e.g., concentrated solar thermal plants in the Southwestern deserts, wind farms in the corridor stretching from Texas to the Dakotas, and advanced plants in geothermal hot spots that could produce large amounts of electricity.

Other projections indicate that the United States will put a price on carbon and spearhead an effort to replace the Kyoto treaty with a more effective agreement that would cap global carbon dioxide emissions and encourage all nations to invest efficiently in initiatives to reduce global warming as well as deforestation.

As more and more countries become industrialized and seek to improve their standard of living, the sun and wind are the only sources that will be able to meet future terawatt levels of power demand. It's high time we employed natural, sustainable elements – i.e., sun, wind, air, and water – for all our future energy, fuel, and food needs. Only then will we be able to curtail the damaging effects of global climate change.

FAQ

What is Eco Global Fuels' policy on the growing of food for bio-fuels?

The world of fuel chemistry and production is undergoing an exciting and confusing change. The range of possible bio-fuels includes cellulosic ethanol, cellulosic butanol, cellulosic gasoline, cellulosic bio-diesel, cellulosic "bio-crude," and many, many more.

Commercially speaking, the only established biological pathway for ethanol production is the fermentation of corn, sugar and sorghum. The most up-to-date research from the cellulosic chemical engineers at Caltech states that "the cost of industrial cellulolytic enzymes from other plant material is 20-50 cents per gallon of ethanol produced" while "the cost must fall to 3.5 cents per gallon for cellulosic corn ethanol." Caltech's engineers are now searching for better fermentation enzymes to improve the cost effectiveness of cellulosic ethanol production. Because corn ethanol is generally blended with gasoline, its market value is directly tied to the price of oil. There is thus a political complexity and compliance regarding the interplay between the markets for oil, corn and ethanol.

While cellulosic ethanol is technically a green fuel, it is in fact unsustainable from both an environmental and a market perspective. Given the limitations of available arable land, current global cellulosic bio-fuel production can only result in rendering these food sources inflationary. Moreover, food is fuel for human consumption – not fuel for transportation. To produce enough cellulosic ethanol to replace all fossil fuels globally for a year (7.5 billion gallons), more than twice the total amount of arable land on earth would be required.

The Hydroxy Hydrogenation Solanol model is more cost effective than corn-based ethanol, bearing a higher ROI yield without subsidies and without having any effect on food prices. Whereas the cost per gallon of cellulosic ethanol production is \$4 without government subsidies, the production of Solanol comes to \$1.35 per gallon. While the federally mandated consumption levels of corn ethanol will not for the foreseeable future be truly cost competitive with gasoline, Solanol is cost competitive with gasoline now. And in a complete reversal of the carbon emission process, we also produce 17 lbs of enviro-oxygen for every gallon of Solanol manufactured which is a valuable byproduct commodity.

Can seawater and impure water be used just as efficiently for the production of Solanol?

Yes. All water converted into hydroxy gas must first be purified. Water filtration is a well-established and necessary component of the electrolysis process.

*You must be
the change
you wish
to see in
the world.*

Gandhi

FAQ (Continued)



The real voyage of discovery consists not in seeking new landscapes but in having new eyes

Marcel Proust

What if water is unavailable?

There is always water available. In addition to using recycled water, TRI has the capability to purify sea water from the oceans of the world.

I have heard of people developing water-based hydrogen to use in their cars – i.e., saving fuel by using Brown's gas produced by water. How does this relate to Eco Global Fuels?

We manufacture solar alcohol fuels for all transport.

We are not in the business of combining hydroxy with fossil-based fuels for car engines. At present, fueling cars with water is inefficient insofar as the production process consumes far more energy than the fuel could ever possibly release. It would make much more sense to use the electrical energy created via electrolysis instead to produce Solanol.

What is the argument for a hydrogen economy?

A so-called hydrogen economy promises to eliminate all of the problems created from the extraction and burning of fossil fuels. Fossil fuels create a range of problems, including air and environmental pollution, global warming and dependence on imports from politically volatile regions of the world. Reserves of fossil fuels are depleting fast, and it is imperative that new, sustainable alternatives are incorporated into the energy mix.

The Solanol fuel economy is the beginning of a new hydrogen economy and it starts with the hydrogenation of carbon dioxide in the Solanol fuel process model, which warehouses the hydrogen molecule within the matrix of alcohol acting as a natural storage medium developing carbon neutral alcohol fuels.

The barrier of hydrogen alone as fuel;

University of Groningen scientists have designed a lightweight structure that could safely store 6.1% of its weight in hydrogen for use in fuel cells to power phones, laptops and cars. While promising in theory, this technology presents the following difficulties:

- Due to the low-calorie value of hydrogen, absorption must be substantial – making containment an issue.
- Because there are metal hybrids that can absorb hydrogen, weight becomes a problem.
- Because there are crystalline structures that can absorb hydrogen, cost becomes a problem.
- Refilling hydrogen at service stations would be hazardous.
- The infrastructure costs of a hydrogen-based service station would be too high.

FAQ (Continued)

The best way to safely store hydrogen is within an alcohol fuel matrix, which can be blended with existing fossil fuels initially – along with their existing infrastructure. Moreover, the alcohol-based fuel methanol is much more stable and compact than hydrogen – and can be used with fuel cells for phones, laptops and cars.

We are not in the business of making hydrogen for the sake of hydrogen. Rather, we are in the business of making hydrogen in the most cost-efficient manner possible and then converting it to alcohol-based fuels that are environmentally-sound and – unlike hydrogen – safe for storage and transport.

CONTACT

ROGER GREEN

ECO GLOBAL FUELS USA, LLC

Renewable Fuels Production

Email: ecoglobalfuels@earthlink.net

New York City Office: 1-212-421-2768

