



newearth™
renewable energy inc

E C O C l e a n C o a l

NewEarth™ ECO Clean Coal



NewEarth ECO Clean Coal is a new revolutionary sustainable 100% biomass fuel that was specifically designed for coal-burning power plants to immediately reduce their CO2 and Greenhouse Gas (GHG) emissions. It is a renewable alternative fuel to coal, that is CO2 and

Greenhouse Gas neutral. ECO Clean Coal can be either co-fired with coal or totally replace coal at any coal-fired power plant worldwide, without any retrofitting, loss of productivity, or service to your customer. It is a pound per pound replacement for coal, and it will lower any electric power generation station's total CO2 and GHG emissions by the proportion/ratio in which it is used.

ECO Clean Coal is produced in any range of energy content/value, from 9,500 to 14,500 BTU's. NewEarth offers ECO Clean Coal in the following 4 types of coal classifications: lignite, sub bituminous, bituminous, and anthracite coal.



ECO Clean Coal is an improvement over all other forms of biomass fuel such as regular wood and wood pellets. It offers

the maximum potential for co-firing biomass and coal together for electric power generation and is an immediate solution to the CO2 and GHG emission challenges all coal-burning power plants are facing due to Global Warming. Through the process of our natural ECO Torrefaction and ECO Densification the energy properties of the biomass are augmented and refined for clean burning electric power generation. During the ECO Torrefaction process the molecular structure of

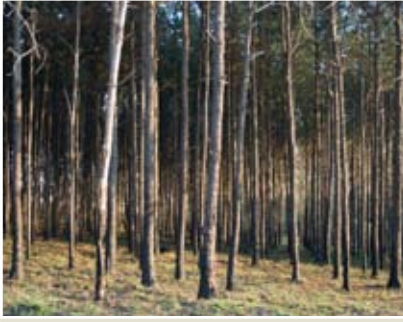
the wood is transformed into a more refined fuel, similar to the energy nature of coal but with out any pollution side effect because all pollutants have been removed. After it has been processed only the energy component remains in the wood, the natural smoke forming volatiles have been removed and the moisture and ash content is reduce to less that 1%. Through ECO densification a higher heat value/energy content is achieved, it is then pelletized for transportation. It is now a renewable fuel that resembles the energy component in coal, but where as coal has many other pollutants still trapped inside of it, ECO Clean Coal has been liberated of all



pollutants. Therefore, when the ECO Clean Coal is burned it is smokeless and odorless. You can burn it indoors and outdoors. There will be no smoke only heat.

This is technology that can be used today in the existing power infrastructure, without costly investments or retooling. Any coal-burning electric power generation station anywhere (U.S. China, Europe, etc.), in just one day could switch out completely its coal load, and burn our NewEarth ECO Fuels and become green house gas neutral, and **never pollute the air again.**





Is there any coal in ECO Clean Coal?

NO, there is actually no coal in ECO Clean Coal. We only call it ECO Clean Coal because of the industry we primarily serve,

the electric power industry. ECO Clean Coal can also be used in the metal industry because of its high heat value like anthracite coal, **without any retrofitting, loss of productivity, service to customers, or down time. This is a major step forward in the effort to reduce and possibly reverse the effects of Global Warming.**

Although it looks like coal, and produces the same energy output as coal pound per pound, it is actually just biomass that has been naturally processed and augmented to produce clean green energy specifically made for electric energy production at coal and natural gas power generation stations around the world.



What is the difference between dirty coal and ECO Clean Coal?

Coal is just biomass from millions of years ago that has undergone a lengthy transformation process in which **the**

pollutants were not separated out of it. The pollutants remained inside and crystallized along with the energy component of the biomass. Once the biomass has become coal, the pollutants can no longer be completely removed before it is burned. These pollutants remained inside. When coal is burned, these pollutants are released along with the energy. This is the main reason why coal is bad for the environment.

NewEarth ECO Clean Coal is the #1 solution to Global Warming for all coal-burning power plants because the properties of our ECO Torrefied biomass wood are similar to the energy structure and heat properties of coal but without the pollution properties found in coal. Because ECO Clean Coal is CO2 and GHG neutral, it will satisfy

all your company's environmental needs for clean sustainable renewable pollution-free fuel.

Your company can start using ECO Clean Coal today and produce clean green energy without releasing harmful Greenhouse Gases!



NewEarth ECO Clean Coal:

- Is CHEAPER, CLEANER, and SAFER than the TOTAL COST of COAL and all fossil fuels.
- Is CO2 and all Greenhouse Gas Neutral.
- Is the most cost effective solution for all coal-burning power plants because total emissions can be reduced without any retrofitting.
- Can be directly stored, processed, and co-fired with coal to cut operational cost.
- Is the most compatible biomass fuel to burn with coal.
- Contains all the energy but half the total price of coal (from 9,500-14,500 BTU's).
- Is made from 100% certified energy crops that we grow. Our crops consist of short rotation coppice wood crops. We do not destroy old growth forests or compete with food crops.
- Is the best fuel to co-fire with coal for maximum results, and can be co-fired in any ratio.
- Can replace all coal consumption to transform any former coal-burning power plant into a total CO2 and GHG emissions neutral power generation station.
- Will earn any company massive carbon credits.
- Is the cleanest burning biomass fuel in the world. It is smokeless and odorless.
- Is moisture resistant, will not reabsorb moisture and is less than 1% moisture and ash.
- Eliminates the need for expensive scrubbers and pollution control technology for total biomass fuel projects.

- **Solves any company's environmental challenges.**
- Is a reliable, cheap and abundant renewable fuel supply. We can provide a company with any supply quantity/amount.
- Is patent pending.
- Can replace expensive GHG polluting natural gas at natural gas burning power plants worldwide through gasification technology.
- Is the highest quality uniformed standardized biomass fuel product.
- Is the only CO2 and GHG neutral fuel for base load power generation.
- Complies with all international environmental government regulations (new, old, and pending) and the Kyoto Protocols.

Product	Price	BTU's	Source
Stocked Supply	\$110 - \$145	9500-14,500	SRC
Dedicated Biomass Fuel Projects	Contact NewEarth	9500-14,500	SRC

Carbon Credits and Other Offsets



With NewEarth ECO Clean Coal your company can earn a minimum of 3 carbon credits plus other offsets — greatly reducing your company's fuel costs.

Your company's ECO Clean Coal fuel cost will always be cheaper than the total cost of coal. In some cases where there is a strong carbon trading market, such as in the state of Massachusetts, your company's carbon credits will reduce the cost of your ECO Clean Coal to zero, and even earn your company revenue.

For every ton of coal that your company replaces with ECO Clean Coal, your company prevents 3.1 to 3.6 tons of CO₂ from entering the atmosphere thus earning your company 3 carbon credits.

Because we create our biomass fuel from short rotation certified energy crops, in some carbon markets this will earn your company more carbon credits and offsets. In Europe carbon credits are exchanged for about 22 Euros per carbon credit. That is about \$33 USD.

No other sustainable energy product or renewable fuel can earn your company 2 sets of carbon credits. With 1 carbon credit from SRC and 3 from fuel switching, (4 carbon credits x \$33 USD) ECO Clean Coal is earning companies revenue when used as an alternative fuel to coal for electric power generation.

The Price (for stocked supply)

The current price of ECO Clean Coal per ton is \$110 USD from NewEarth's Surplus Stock. To receive this price a company must order a minimum of 100,000 tons per year. **When your company calculates all the financial benefits from all the carbon credits, plus other offsets and reductions, you will see that ECO Clean Coal is cheaper than the total cost of coal.**

Increase your company's profits and solve all your company's environmental challenges all at the same time with ECO Clean Coal.



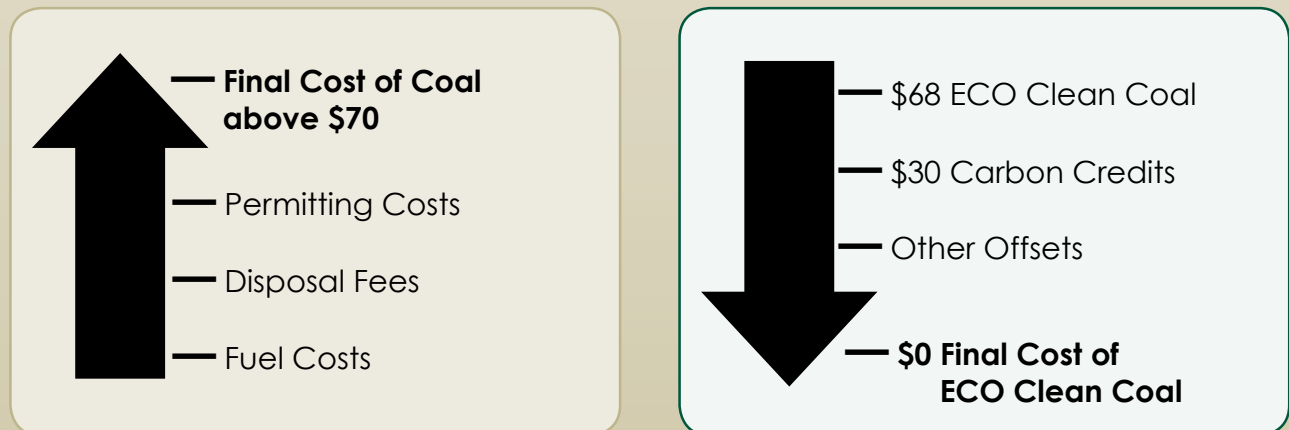
What is Really Cheaper Coal or NewEarth ECO Clean Coal?

To understand this question one must calculate all the variables associated with coal consumption to get a real or true picture of the total cost of coal. The following worksheet shows those costs that must be factored in to determine the total cost of coal. Some economists looking at the question have concluded that for every ton of coal that is burned a company pays a minimum of \$100 per ton.

- Emissions cost \$_____
 - Fines \$_____
 - Retrofitting/tooling scrubbers and components lime/limestone/ammonia \$_____
 - Landfills and disposal cost \$_____
 - Installation of pollution control equipment and pollution control cost \$_____
 - Air quality permit cost \$_____
 - NOx, SO2, Mercury emissions permit cost \$_____
 - Blending cost \$_____
 - CO2 capture equipment \$_____
 - Cost of electric to run the pollution control equipment \$_____
 - D Rate \$_____
 - Sample and Analysis cost \$_____
 - Other regulatory cost \$_____
 - Permitting cost for new coal power plants \$_____
- Etc.,etc.,etc., \$_____

Compare coal vs. ECO Clean Coal

This chart shows that when calculating the true cost of coal other costs must be factored in. When these costs are factored in the true cost of coal is above \$70. With ECO Clean Coal the calculation of offsets brings the price down below \$30 and as low as ZERO in some markets.



Certified Energy Crops

ECO Clean Coal is 100% biomass fuel made from sustainably grown and certified short rotation wood energy crops, for the purpose of creating a renewable fuel supply to reduce the consumption of fossil fuels like coal, oil, and natural gas. We do not cut down any old growth forest, we do not compete with food crops or use land that could have been used to grow food on. NewEarth is a truly sustainable company, we are conscious of the Earth as well as humanity's needs.



A Paradigm Shift/ Enlightened Business Minds

Albert Einstein said, "We can't solve problems by using the same kind of thinking we used when we created them." The basic understanding to solving the problems that currently face the electric power industry **can only be found in a paradigm shift.** The answer

is an evolution in our thinking. The problem is basically fossil fuels, and the pollution they cause.

THE SOLUTION IS THE FUEL. If the fuel is pollution free, then there is no need to spend money on expensive pollution control equipment, **to capture pollution after the fuel is burned.** If you remove the pollutants before you burn the fuel, **THAN POLLUTION NEVER ENTERS THE ATMOSPHERE.**

All the focus has been on capturing the pollution from the fossil fuels like coal after the fuel is burned. But what if you eliminated the pollution from the fuel source before you burned it so that there are no pollutants left. This is the paradigm shift needed to solve the problem at its root.



when ECO Clean Coal is burned only heat is produced, no smoke, no pollutants, no odor, a new revolutionary answer to the problem is achieved. **There is no other cleaner or purer form of fuel anywhere.**

For older power plants (10 years or older) this is the most cost effective solution for these stations to become sustainable and even carbon neutral.

By helping the power plants become sustainable, the #1 cause of Global Warming (coal-burning power plants), becomes the **#1 Solution to Global Warming** with just one simple change.



ECO Torrefaction (Beyond CO2/ GHG Neutral)

ECO Torrefaction is the natural process of improving the overall properties

in biomass to become a higher energy output and cleaner burning fuel in a truly environmentally friendly / sustainable way. During ECO Torrefaction, a rearrangement and decomposition of the biomass structure occurs rendering it completely dry, and free of its tenacious and fibrous structure. The grind ability of the biomass is improved greatly, while the BTU or calorific value also increases sharply. The biomass fuel becomes completely moisture resistant. Through this natural process very energy dense fuel pellets are created, and the biomass loses its various types of smoke-causing volatiles. More mass than energy is lost, which results in an amazing process of energy densification. An increase in the calorific value is achieved from 17-19 MJ/kg to 19 to 29 MJ/kg, and 90% of original energy content remains. After ECO Torrefaction, degradation or decay of the biomass can no longer occur. It becomes close to the nature of coal, but without all coal's pollutants. It becomes totally clean-burning. Because it is smokeless and odorless, **it is really beyond CO2 and GHG emissions neutral.** Thus it may be said the only "clean coal" is NewEarth ECO Clean Coal. NewEarth ECO Clean Coal can then be stored, pulverized, and processed in the same units as coal to further reduce any company's operational costs.

Natural Gas

Through gasification technology NewEarth ECO Clean Coal can be gasified to replace expensive natural gas at natural gas burning electric power plants worldwide. Because ECO Clean Coal is CO₂ and GHG neutral, your company will also generate revenue from carbon credits, and reduce its fuel cost enormously.



Other Forms of Biomass and Other Attempts to Find a Solution

Most power plants will begin by co-firing our renewable fuels

with fossil fuel to reduce their total GHG emissions at their electric power generation stations. Our NewEarth Biomass ECO Fuels are an improvement over ordinary biomass fuels because of their compatibility with coal and other fossil fuels. Our ECO Biomass Fuels can also be stored and processed with coal, while other biomass products like wood pellets cannot and require costly retro fitting, other special processes and storage units. This is the most cost effect and immediate solution for coal-burning power plants to go green, and reduce their total Greenhouse Gas (GHG) emissions. For power generation stations that are 1500 megawatts or less it is possible for these units to be totally CO₂ and GHG emissions neutral immediately. This eliminates the need to build costly scrubbers at these units, a savings of hundreds of millions of dollars.

Our goal as a company is to help electric power companies make a transition to a greener and more sustainable business future today! With carbon sequestration technology, and so-called “clean coal” technology a minimum of 5-10 years away, with billions of dollars need to achieve it, the coal burning electric power industry **needs a sustainable answer today.**

Many U.S. industries and electric power generation facilities resisted the idea of sustainability in the past because they felt that sustainability and high profitability were unobtainable together. By using ECO Clean Coal

it is easy to achieve **successful sustainability** in 12 months or less.

Renewable energy from other renewable energy sources like wind and solar fluctuate, and cannot provide base load power generation, and or constant electric power generation. With NewEarth ECO Biomass Fuels this is now possible. By using our biomass fuels to provide a sustainable solution to fossil fuel consumption, our nation's existing power infrastructure can continue to be used instead of creating extensions to our nation's power grid via other remote projects.

ECO Clean Coal Analysis

Fuel Characteristics	Percentages*
PROXIMATE ANALYSIS	
% Total Moisture	1%
% Ash	1.00%
% Volatile Matter	78.00%
% Fixed Carbon	20.00%
% Sulfur	0.00%
BTU/lb Heat value	9500-14,500
LBS SO ₂ /MBTU	0.00
lb Ash/MBTU	0.00
ULTIMATE ANALYSIS (dry)	
% Carbon	54.00%
% Hydrogen	6.20%
% Nitrogen	0.14%
% Oxygen	39.50%
% Sulfur	0.00%
ASH CHEMISTRY (dry)	
% Silica (SiO ₂)	0.20%
% Alumina (Al ₂ O ₃)	0.47%
% Titania (TiO ₂)	-
% Iron (Fe ₂ O ₃)	0.58%
% Calcium (CaO)	29.00%
% Magnesium (MgO)	7.03%
% Sodium (Na ₂ O)	0.06%
% Potassium (K ₂ O)	16.24%
% Sulfur trioxide (SO ₃)	0.00%
% Phosphorous (P ₂ O ₅)	0.84%

* Percentages are based on dry weight (except moisture).

Clean Fuel for a Clean Future

There is an immediate answer to the CO2 and GHG emissions problem, for all coal and natural gas burning power plants, it is ECO Clean Coal.

The U.S. Department of Energy, the EPA, Edison Electric Institute, EPRI, and ACORE all recognize that co-firing biomass with coal is a very cost effective way for a company to produce energy and lower their Greenhouse Gas emissions at the same time. The only thing left is to do it.

BE A PART OF THE CHANGE. TAKE THE STEP TOWARD A BRIGHTER FUTURE.

COMPARE THE BENEFITS OF NewEarth™ ECO CLEAN COAL TO COAL

NewEarth™ ECO Clean Coal

1. Very Clean burning
2. Cheaper than coal
3. Very safe for the Environment
4. Only True Solution to Global Warming
5. Green House Gas Neutral
6. Tree plantations clean environment
7. Virtually no water pollution
8. Infinite supply
9. Equal or more BTU's to coal
10. Low moisture
11. Green energy stimulates new investments
12. Very low ash can be used as fertilizer
13. Makes the public happy
14. Life affirming
15. Great for America's air quality
16. Earns carbon credits & other offsets
17. Meets all environmental regulations
18. Lowers cost (operational & permitting)
19. 100% biomass eliminates cost of scrubbers
20. Eliminates bad press and legal issues
21. Increases your company's profits
22. 100% Organic/ biodiversity
23. Restores land and environment
24. Renewable

Coal

1. Very dirty /main source of air pollution
2. More expensive than NE Biomass
3. Very dangerous for environment
4. Main cause of Global Warming
5. Full of toxic and deadly Green House Gases
6. Destroys the environment
7. Massive water pollution
8. Limited supply between 180-300 years
9. Equal to less BTU's to biomass
10. Very high moisture
11. Coal does not stimulate investments
12. High ash and disposal problem
13. Does not make the public happy
14. Causes 25,000 premature deaths per year
15. Very Bad for America's air quality
16. Increases environmental fines and penalties
17. Violates environmental regulations
18. Increases cost (operational & permitting)
19. Incurs 100's of millions of dollars in the cost of scrubbers
20. Creates bad press and many legal issues
21. Depresses your company's profits
22. 100% Toxic
23. Destroys environment through mining
24. Not Renewable



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