

# CNFbiofuel™

Patents Pending

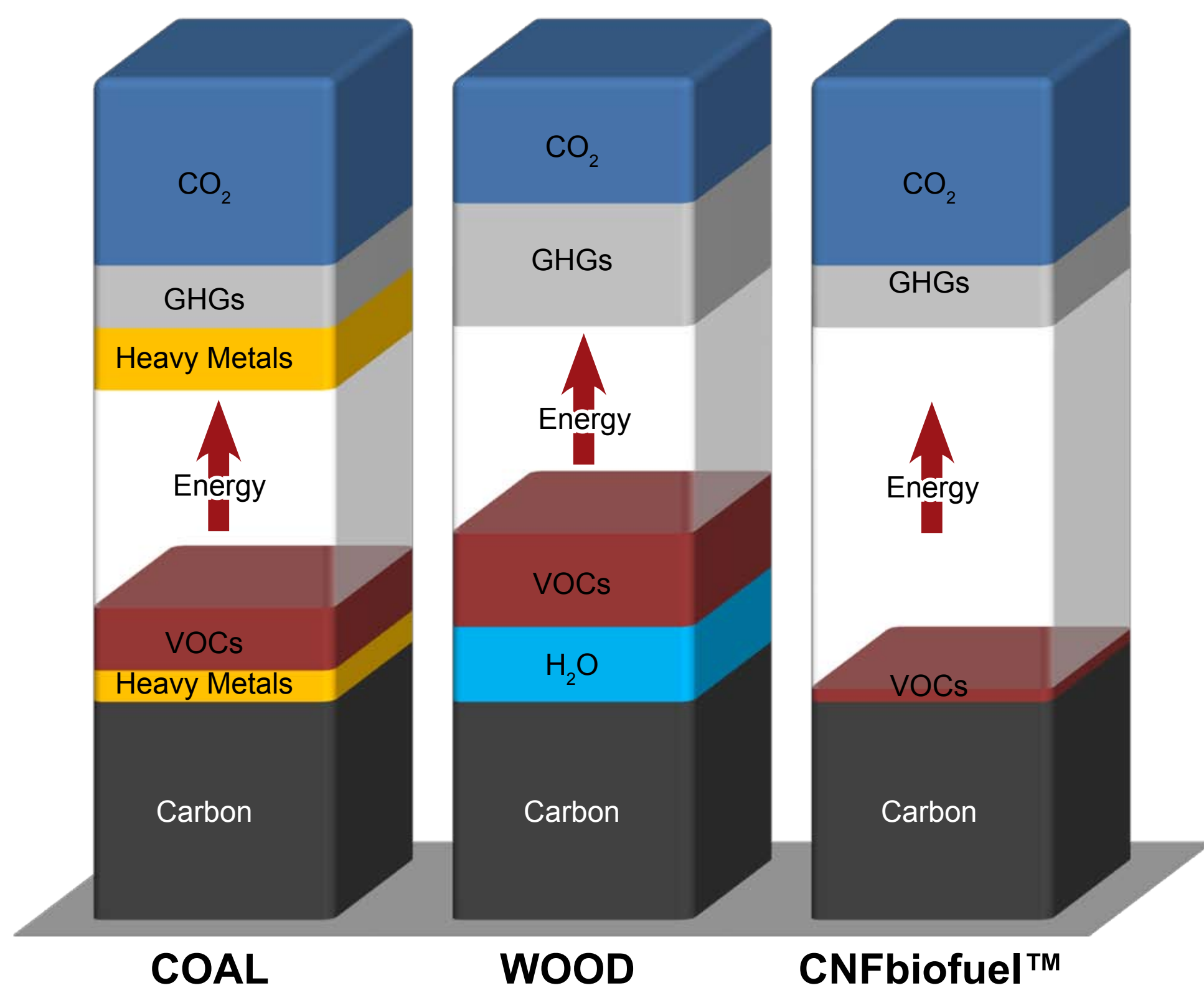
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## Enhanced Torrefied Wood Pellets

### The Problem

- Pollution from the use of fossil fuels.
- Dependence on fossil fuels for energy.
- Health hazards relating to fossil fuels.

### Fuels Comparison



### The Solution

Use the solar energy stored in biomass that has been pre-treated to remove water and VOCs by torrefaction. This results in clean complete combustion.



CNFbiofuel™ is made from biomass, in pellet form, that has all the positive qualities required to finally help solve our energy and pollution problems. CNFbiofuel™ is a clean burning product that was once wood, but processed in a unique way that removes virtually all the water and polluting volatile organic compounds before combustion.

Wood is hygroscopic, absorbing water and decomposing quickly. Microbes and insects quickly break down and consume wood.

CNFbiofuel™ is hydrophobic, repelling water, moisture, microbes, insects and decay, an ideal carbon offset.

Preliminary testing of CNFbiofuel™ has shown positive results in increased heat content, friability and hydrophobic properties making it an ideal fuel. The produced fuel is ideal for solid fuel, atomization or a uniform feedstock for gasification. CNFbiofuel™ has several patents pending.

### CNFbiofuel™

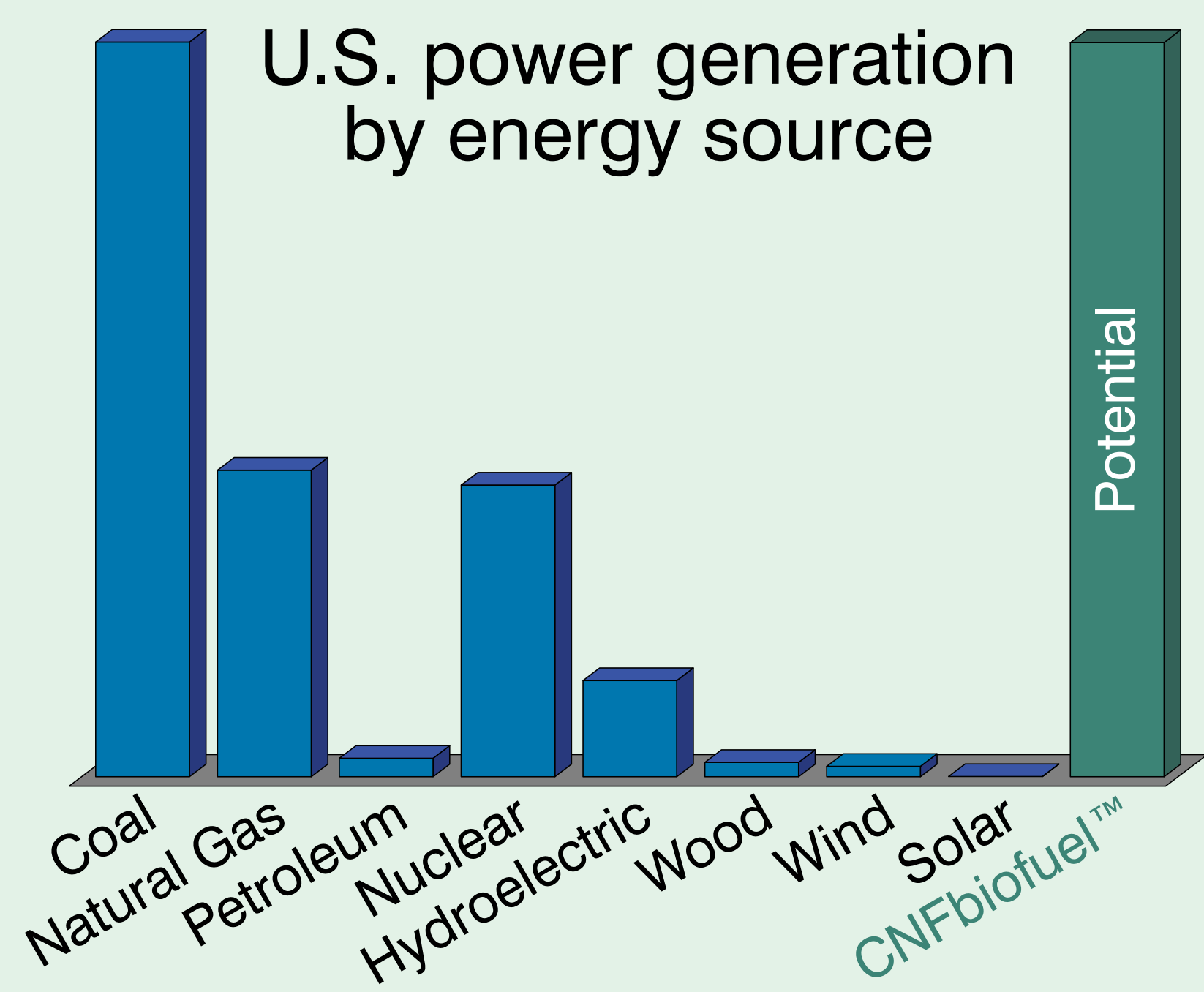


The CNFbiofuel™ system uses a new patent pending Liquid Immersion Torrefication Processing Technology. This uses "Conduction" heat treatment of wood pellets in multiple stages of heat transfer fluid.

This process puts over 1000 times as many molecules in direct contact with the wood surface as compared to the prior art "Convection" heat treatment in a gas or steam process.

### Coal - most used fuel for electric power generation

Global coal use has increased to over 6.5 billion tons per year due to low cost and availability.



Source: DOE "Electric Power Monthly"

CNFbiofuel™ can be co-fired in existing coal burning power plants, CHP and gasification systems.

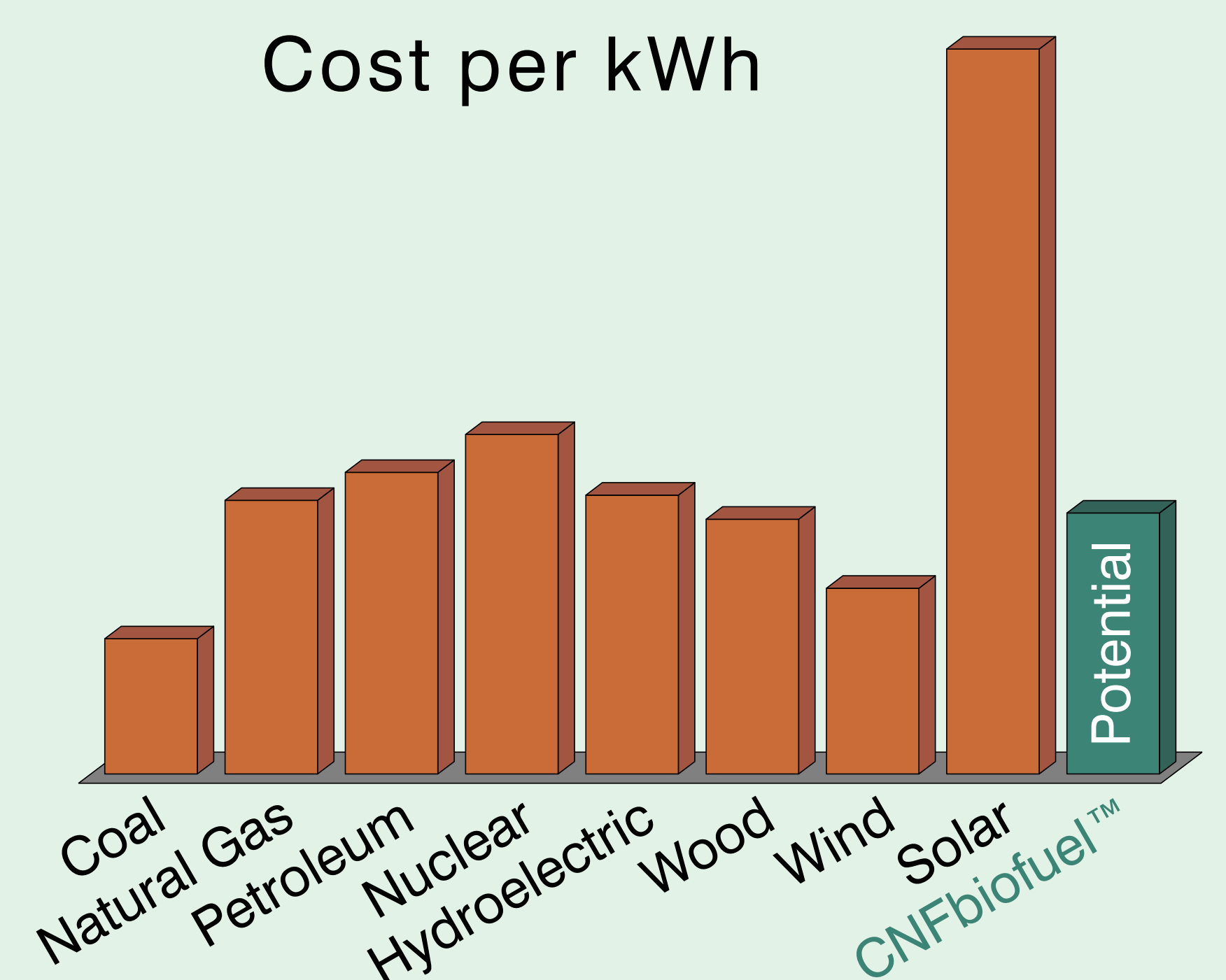
### TEST STAND



### CNFbiofuel™ - most cost effective renewable energy

Wood and coal are the least expensive fuel sources. CNFbiofuel™ gives an immediate reduction in pollution without the high price of alternative energy sources.

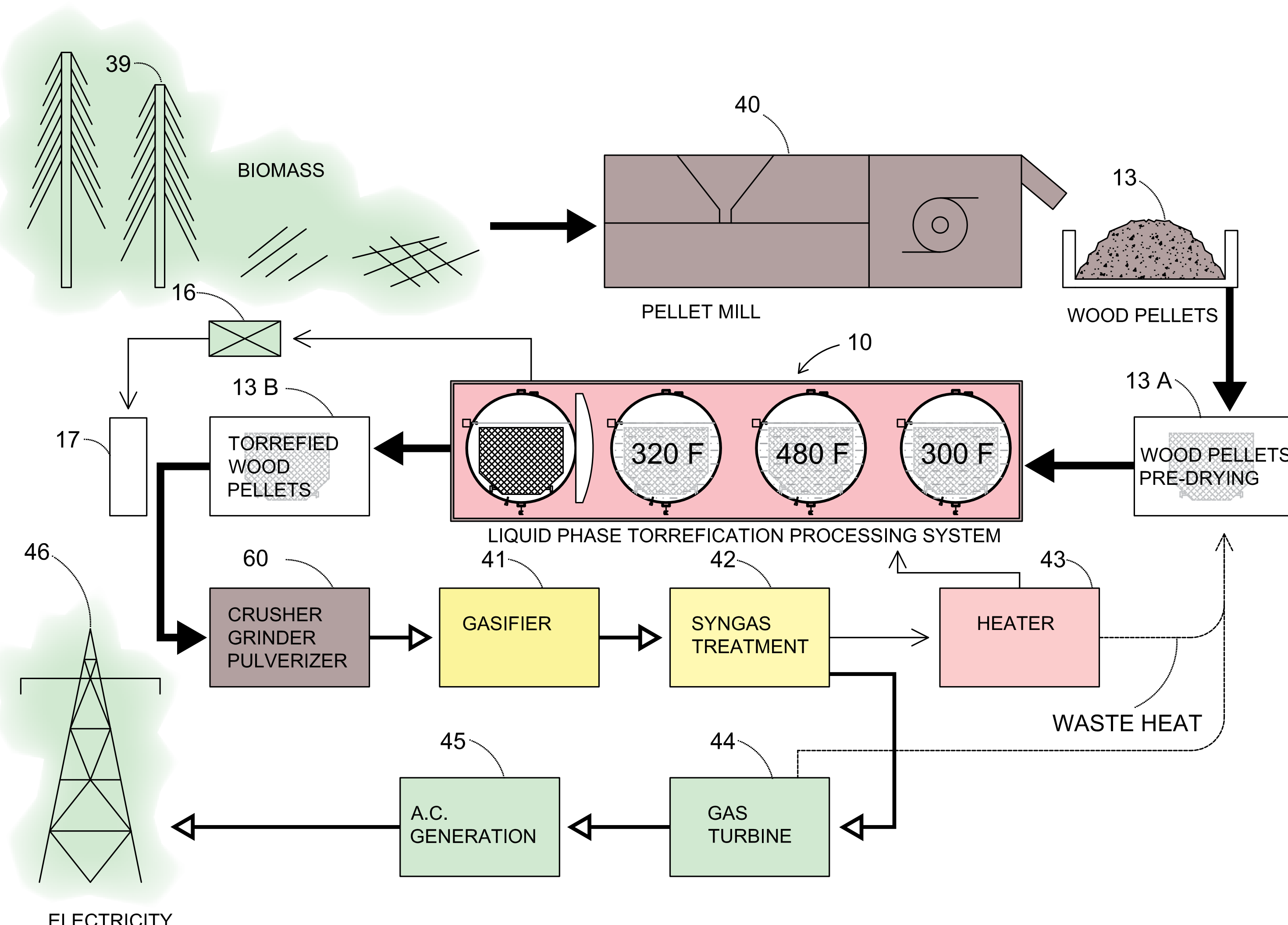
### Cost per kWh



Source: CEC "Energy Technology Status Report"

### Benefits of CNFbiofuel™

- Waste wood and other normally unused biomass could be put to a practical use instead of being left to decay turning into carbon dioxide, methane and other greenhouse gasses. Decaying biomass adds pollution without utilizing the sun's energy.
- Large areas of near worthless land could be put to use growing energy biomass crops.
- Air pollution will decrease with each pound of CNFbiofuel™ produced.
- Many harmful fossil fuel gasses and pollutants will be eliminated from the environment.
- CNFbiofuel™ is an ideal carbon offset. It can be stored indefinitely, removing carbon from the environment, or it can be burned in coal powerplants offsetting the carbon dioxide from coal.
- Coal is used more than any other fossil fuel. In addition, most coal is not of high quality. This low quality coal is higher in sulfur and heavy metals, requiring more complex and costly air pollution controls. CNFbiofuel™ reduces the use of low quality coal.
- CNFbiofuel™ is the only immediate practical solution to a clean energy fuel to replace fossil fuel coal on a large scale.
- CNFbiofuel™ has an unlimited potential for energy production.



### Electric Power Generation with CNF Torrefied Wood™

### CNFbiofuel™

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