



Bhasker Patel: Inventor of "The Miracles of Coal Molecule®"



- Ref# 1** • Miracles of AED's Patented HT (Hydro-Thermal) Process:
- Ref # 2** *Basically, 'Controlled HT' (HT) is a method of converting any carbonaceous material to the next higher grade feedstock; HT sub-bituminous coal is upgraded to bituminous coal; lignite into sub-bituminous; and biomass into a lignite.*
- Ref# 3** *Therefore HT actually causes partial coalification of the biomass to occur in a matter of minutes as opposed to the millions of years Mother Nature requires. In essence you are taking an ultra low Sulfur, Ash, and Trace Metals biomass and converting it into a very clean LRC (Low Rank Coal). If the biomass fed to the boiler is over 40% moisture, then energy density of LRCWF (Low Rank Coal Water Fuel) would be slightly higher even though it will contain 40% water.*
- Ref# 4** *This is due to the HT temperature being high enough to cause some weak bonds in the coal "molecule" to break and release CO₂. Since the "carbon bonded to oxygen" has no heating value, its removal will increase the energy content. The increase in energy is typically around 10% for lignite and could be as much as double that depending on the type of biomass.*
- Ref # 5** *The significant harmful emissions reduction when comparing raw biomass feedstock to BWF(Biomass Water Fuel) feedstock would be NO_x, which would be highly dependent on the type of combustor used and is resources specific..*