ATP Energies Facility Design Concept

Every city in America possesses all the components it requires to manufacturer 100% of its liquid fuel and electrical power needs. With your financial help, ATP Energies Inc. will combine existing technologies that are commercially available now and we will physically prove how every city can achieve energy independence, eliminate 100% of their waste and remove large quantities of Carbon Dioxide from the atmosphere.

CO2 is scrubbed from the surrounding air through pressure and/or PH differential nanoscale membranes

Captured CO2 is fed to….

Various strains of algae grown in separate closed loop systems of clear tubing under tightly controlled light, atmospheric and temperature requirements to ensure maximum growth rates

Our Biomass is harvested via highly energy efficient cloth media vacuums identical to those currently use in large city water treatment plants

Biomass is flash dried in a cyclonic tower in seconds

Biomass is sold as high protein foodstock or is converted into liquid fuels, oils used in plastics or Biochar.

Dye solar cells that are made primarily from iodide and Titanium Dioxide (a primary ingredient found in toothpaste) are over 90% efficient in converting green light into electricity. These cells are placed near the clear tubes growing the biomass. The green light coming from the sun and reflected by the algae are converted by these cells into electricity and the remaining red and blue light coming from the sun and reflected by the cells are directed into the algae to further enhance algae growth

Excess Electricity is delivered to the city

The suns infared heat absorbed by the solar cells will be captured and delivered to the geothermal piping system

Heating and cooling of the water in which the biomass is grown is provided by ….

Shallow geothermal piping used to store and retrieve heat energy to and from the soil under the facility

Waste heat and syngases are used to drive a generator that produces electricity

Plasma Arc Gasification produces a flame as hot as the surface of the sun which we use to totally decompose 100% of a cities solid wastes, including all of its toxic wastes, into inert solids and useful gases.

Waste PAG heat will be used in combination with the stored geothermal heat to maintain the water temperature during winter growth of the algae

Any remaining trace amounts of Dioxins detected in the waste gases are captured and Bioremediation is used to convert it into the same natural gas that causes fruit to ripen

Captured Carbon Monoxide is converted to CO2

All waste CO2 is fed to the biomass

Captured Hydrogen is used to produce electricity

Vitrified inert solids are crushed and sold as additives to bricks, cement and asphalt