

Re: The instant solution to global warming, zero energy (no yeah right, hydrogen combustion)

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- *From:* gb6726@xxxxxxxxxx
 - *Date:* 2 Feb 2007 12:30:08 -0800
-

On Feb 2, 12:10 pm, gb6...@xxxxxxxxxx wrote:

Hydrogen can be extracted
out of air using electrolysis
using the car's battery

About 60% loss of applied energy doing
this.

The 60 percent loss applies only if its electric.

Electrolysis is electric. 60% applies.

Physics and chemistry is astronomy. A Universal and Chemics
is Bush.

Ignoring my sideposts, the bus in Chicago has a gas tank five
times of gas tanks of conventional busses, and is filled with
hydrogen. That hydrogen mixes with oxygen, and produces
electricity which runs the bus. That hydrogen tank itself was
produced using electricity, and if one calculates the cost,
the design is 60 percent energy efficient. That hydrogen
which produces electricity, needed 40 percent more electricity
in producing that hydrogen.

But what I am saying, is that when we burn hydrogen, it has
the same power as gasoline, which produces more power than
electric engines. Then we have more than 40 percent extra
energy, which can be used to produce hydrogen using
conventional means that the factory used to supply these
busses in Chicago with hydrogen. Of course we need to fit

Re: The instant solution to global warming, zero energy (no yeah right, hydrogen combustion)

this technology inside a car, and it becomes a zero energy car. Take your time, I respect your true expertise.

Hydrogen can be used to replace gasoline in ordinary cars. This is trivial, but you have to use your brain.

You have to replace your exhaust system. You have to adjust your timing. You have to monitor your lubricants. It is not "trivial", and yes, please do use your brain.

I am from East Europe, people use illegally installed propane gas tanks to run their cars as gasoline is expensive. Nothing needs adjustment. I am speaking of authentic cars.

As trivial it means that we all should understand.

You haven't yet.

Russians and Americans are not alike.

You have probably heard of hydrogen combustion engine.

MythBusters, if nowhere else.

There are two types of hydrogen engines. When oxygen and hydrogen mixes, electricity is produced.

fuel cells. >80% efficient. Extremely intolerant of contaminants in their fuel and oxidizer supply.

There are busses in Chicago that use this technology, and the electricity produced runs these busses. Here the 60 percent energy efficiency is true.

Re: The instant solution to global warming, zero energy (no yeah right, hydrogen combustion)

No.

Explained above.

Here when oxygen and hydrogen is mixed, a product aside from electricity is water. This is a beautiful and silent technology, and relies on the transportation of hydrogen as fuel.

The second, and the most ignored version of a hydrogen based engine, is hydrogen combustion. Hydrogen is gas that burns and works perfectly with most traditional car engines.

For a while, yes.

What I ask as a preservation of technology, is based on my trivial understanding that hydrogen using electricity can be extracted from water,

60% loss of energy here.

Again, this should be explained already.

and water can be extracted from the air using electricity,

Some places easier than others. Some times of year easier than others. All require *significant* energy inputs to do so. On the order of what you expect to get out of it, plus a bit more for entropy.

Re: The instant solution to global warming, zero energy (no yeah right, hydrogen combustion)

Right. My father is a biotechnologist, I know from him that water is extracted very efficiently in the driest Sahara.

as a waste product of air conditioners.

Which don't run year round.

The possibility is there for an engine that extracts hydrogen from the air using a car's battery, and uses that hydrogen as a replacement to gasoline.

The internal combustion engine is about 30% efficient on a good day.
You lose energy condensing water.
You lose energy electrolyzing water (yes more than you get out of it in hydrogen, right here).
You lose energy burning it in an internal combustion engine.
You lose energy in converting shaft work back to electricity.

Well, one may just have to try and see. A car mechanic in East Europe could do it.

and sends the hydrogen gas directly to the engine.)

Grinds to a halt really quick. Because you do not consider real inefficiencies.

Ok. Why should we believe till we see it. Why should we see it, if we don't want to believe it.

Been tried. Even carefully, the second law of thermodynamics prevents "over unity" devices from working.

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Your "good intentions" are just noise, and are off topic in sci.astro.

Thanks, good talk.

George

Summary:

Meeting the challenges of global warming.

I would like to talk about a highly unknown technology, that is an alternative to oil.

As highly unknown, it is hard to talk about it, and as unknown, it is not understood until there is research. And yet this energy is here with us in the air: hydrogen.

Hydrogen when mixed with oxygen produces electricity. Hydrogen can be extracted from water using electrolysis.

In Chicago, busses exist that use hydrogen. This hydrogen from the bus' tank mixes with oxygen and the result is electricity that runs the bus.

This hydrogen was produced with electricity, and the cost to produce hydrogen costs 40 percent more than the electricity produced by the hydrogen in the bus in return.

Now the unknown technology lays not in the already used electric hydrogen busses in Chicago, but in another form of hydrogen-based energy: combustion, one that burns hydrogen. From what I read, burning hydrogen offers the same energy as gasoline when burned, and that car engines can run on hydrogen, though the effect on the car's engine is not fully known.

When burning hydrogen, one gets more energy than electric power.

It means that a combustion engine can produce more energy out of hydrogen, and the 60 percent efficiency seen in the electric motors fueled by hydrogen perhaps can move above 100 percent, meaning by 'burning' hydrogen, we

Re: The instant solution to global warming, zero energy (no yeah right, hydrogen combustion)

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can
actually produce energy.

(The produced energy in return can be used to acquire hydrogen from water.

Further, water can be extracted from air using an air conditioner, even in the driest Sahara air conditioners extract water from the air. A combination that can eliminate the dependency to deliver fuel, rather burning hydrogen should produces enough energy to extract the needed hydrogen right from the air.)

This technology can prove to offer an environment–friendly and far more economical solution for energy.

I ask for the research and protection (from patents) of this trivial (all should understand) technological possibility.

One sees a car that has no gas tank, and runs without stopping.

One sees a cruise–ship crossing the ocean, and did not need fueling. The energy comes from burning hydrogen.

Carbon monoxide is produced, it's effect for the environment belongs to researchers.

Water for such a cruise–ship can be extracted from the sea, and the engine that runs on hydrogen produces simple electricity for separating H and O atoms. The hydrogen burns in combustion engines.

I ask for the research in regards to this zero energy concept, at government levels, and if quick tests prove this technology possible, to make it known and shared.

(Politicians can debate the economical effects, possibly world wars of greed and power.)

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