IMAGINE

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demand at no extra charge!

Hydrogen Super Highway

It might be able to provide enough low-cost energy to power all of America

by Edison Park

magine traveling from New York to Los Angeles by car in 10.5 hours, while the rail system you are running on is producing enough extra hydrogen to power 70 percent or more of the nation's entire energy demand at no extra charge? Sounds impossible? Don't bet against it. If a young group of dedicated pioneers have their way, within a year ground could be broken on a new kind of accelerated highway across America that runs on clean-burning hydrogen-powered magnetic levitation (MagLev) rails, transporting automobiles,



freight and people at up to 250 mph. An article about this unusual project appeared in the ACSA *Advances* magazine (http://www.acsa2000.net/hshrt) recently.

This new, so-called "Hydrogen Super Highway," the "Trailblazer," is one that can almost silently carry cars, passengers and freight between major metropolitan areas—reportedly with absolutely no fuel cost, and an amazing benefit. If all goes well: once completed Trailblazer could potentially produce enough excess hydrogen from its builtin solar panel arrays to power all of America, say proponents, with near zero environmental consequences.

Unlike today's oil, coal and nuclear fuels, hydrogen from solar cells has no long-term toxic emissions, and produces only oxygen and clean water. A new process, *Amorphous Silicon Thin Films*, produces high output solar cells without many of the environmental byproducts of previous solar cell manufacture. And so, America could very well be powered by a new source of sustainable, clean hydrogen before not very long, if the Trailblazer is built!

The Trailblazer is designed so that long distance travelers and freight can travel in style, at very low cost. Stations at key locations and emergency centers provide services for the system at no extra cost. Even propelling vehicles at 250 mph, the new system will still have enough solar panel energy available during daylight hours to produce additional hydrogen for sale to business and the general public in abundance, says the Interstate Traveler Company (http://www.interstatetraveler.us).

The hydrogen fuel provided by the Trailblazer for general use is called "Hydroline[™]" by the ACSA (the American Computer Scientists Association Inc.— http://acsa.net).

Hydroline[™] is a slightly compressed form of hydrogen obtained when electrons from a solar energy panel are fed to ordinary water. It is cooled and stored within the *conduit* that is part of the rail system. When needed, it is fed to fuel cells for electricity production or to Hydroline[™]-powered internal combustion engines which burn the fuel cleanly, yielding only water and heat.

The startup company, Interstate Traveler Company, (http://www.interstatetraveler.us) has been "adopted" by the American Computer Science Association as "the wave of the future, now!" According to the ACSA, who has studied the company's plans in depth, Trailblazer advances a truly revolutionary technology solution: one which has broken down the barriers to a ready supply of cheap, hydrogen energy for the future clean energy economy of America.

Dr. Jack A. Shulman, VISTA (the Very Innovative Science and Technology Advances Laboratory at ACSA) co-

Photo illustrations furnished by:



HOW TRAILBLAZER'S CONDUITS GENERATE POWER FOR AMERICA

ordinator stated: "The secretary of the US Department of Energy recently advised that we buy 98 quadrillion BTUs of energy every year in America. He says we will need 120 quads by 2020. We spend nearly \$500 billion on energy annually. It looks to us at ACSA like Mr. Sutton's Interstate Traveler solution will change everything. It will make it far easier to get from Washington to Chicago in three hours. If it works, its hydrogen from solar production system could reduce the entire cost of energy in America by \$100 billion per year by the end of its first construction year, \$200 billion its second year, \$300 billion the third, \$400 billion in the fourth. If the company's estimates are correct: by the end of the fifth year the Interstate Traveler's built-in solarto-hydrogen converters could be paying for nearly all of America's energy needs."

"That's great news for America! It could spell an end to dependency on non-sustainable energy sources like oil and coal, and an end to our dependency on foreign fuel, while it can be redirected to making lubricants, chemicals and plastics."

Trailblazer's high speed MagLev transit system does represent a unique scheduling, piloting, energy management and maintenance opportunity for any automation system. But, reportedly, representatives of such major companies as Sun Microsystems and Microsoft appear to agree that it could route its rail cars, in high volume and at high velocity, about the same way the Internet schedules itself. That would allow the MagLev rail cars to carry people, autos and freight at 250 mph and switch off to a future elaborate ramp of commuter branches. When offloading, drivers would have to 'gas up' from the inexpensive hydrogen at the off-ramp of the system at their destination.

"Then, what we call 'gas stations' today would truly be 'GAS' stations..." stated Dr. Shulman with a twinkle in his eyes. "While the interstates are 54,000 miles long, ITC could also build along the 90,000 or so miles of rail corridors, tripling the hydrogen output. It will also have enough fiber optic cabling within its system to massively expand today's Internet backbones by an order of magnitude."

Dr. Shulman commented: "Obviously, this solution solves many problems, and is highly scalable. Yet its key is the HydroSol[™] process used to produce Hydroline[™] (Hydrogen in a storable, slightly compressed form, or Hydrol[™] for short). ACSA was always attracted to hydrogen from solar (HydroSol) energy, because: "once commercially rendered feasible, it is the cleanest, soundest way to obtain energy. One is literally 'mining sunlight for electrons' and then, converting ordinary water into hydrogen and oxygen with it. In this case, the hydrogen Hydrol[™] is not only clean burning, whatever it takes from the environment, it puts nearly all of that back-heat, water, oxygen... and it can do nothing but improve the earth's atmosphere, not even a trace of pollution is available from a hydrogen engine or fuel cell...."

The Interstate Traveler's conceiver, Justin Eric Sutton, has been described by the ACSA as: "an extraordinary scientist and an outstanding and brilliant entrepreneur, who has hit upon an amazing multi-disciplinary solution to problems that face us in America today, namely: energy and how to obtain it cleanly and inexpensively." Dr. Shulman recently indicated that he felt that Sutton (and his partners) would eventually take his place among the "great pioneers" in American history, such as Howard Hughes, Wiley Post, Robert Moses, Alexander Graham Bell, Henry Ford and others.

The Interstate Traveler's transit system is said to use new medium size automobile carriers and small passenger/freight carrying MagLev cars that would travel between cities at breathtaking speed. Interest in the new system has ranged far and wide, including some pretty powerful state government bodies such as the state of Oklahoma and the state of Michigan, purportedly. And it has reportedly interested many in the big three automobile manufacturers and abroad.

The Trailblazer has been designed with safety in mind, and security, with emergency response rail cars throughout the system able to speed to any repair point at 250 mph in a few minutes. Fireproofing, weatherproofing and delivery systems for stations to easily obtain and sell HydrolineTM are also fully planned for. Most major auto manufacturers have already designed for conversion to hydrogen power (HydrolineTM).

ACSA is at this time anticipating widespread support for the Trailblazer among its business affiliations and the membership. *M*

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The article "Preventing Electrical Shock with Proper Grounding Techniques" in the May-June 2005 issue stated that an estimated "58 people lose their life each week as a result of electric shock." Jim Gregorec and his agency have compared this statement with the statistics from NFPA, CPSC and other sources and have deduced that this should have read "5–8 and not 58 deaths per week. This would track neatly with existing statistics that have electrocution deaths at approximately 450–550 annually in the United States. Still a startling number since virtually all are preventable.

"We take full responsibility for this oversight. It was not done to mislead readers in any fashion; nor was it an effort to overstate the dangers of electrocution outlined in the article. Moreover, it does not take away the importance of the article's content. We apologize for any confusion it may have inadvertently caused your readers."

House AD or article