

The Interstate Traveler: a High Speed Hydrogen-Solar Transportation System that Produces Enough Abundant, Clean Low-cost Energy to Power the World

American Computer Scientists Association announces it is mentoring / engaging in assistance to perform a validation, demonstration study to the Interstate Traveler Project, a project originated by Justin Sutton to build a high speed hydrogen solar rail transportation system with some remarkable side benefits.

(PRWEB) May 26, 2005 -- Imagine traveling from NY to Los Angeles by car in 10.5 hours, while your Rail system is producing enough hydrogen to power 70% or more of the Nation's entire energy demand at no extra charge? Sounds impossible? Don't bet on it. If a young group of dedicated pioneers have their way, within a year ground could be broke to build a new kind of accelerated highway based on rail transportation of autos, freight and people.

The new highway, called the "Trailblazer" is one that can carry cars between major metropolitan areas reportedly with absolutely no fuel cost. 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 solutions offered by the Interstate Traveler Project – a truly innovative business model has broken down the barriers to a ready supply of cheap, hydrogen energy for the future clean energy economy of America.

Major breakthroughs in engineering have made it now possible to build a high speed transportation system that has virtually no fuel costs, can move automobiles, people and freight interstate at speeds up to 250 miles per hour or more, and yet it produces 300% excess hydrogen for every 100% of its own power needs. The unique technology of the Interstate Traveler uses twin-rail light duty Mag-Lev propulsion, and includes a large array of "Hydrogen from Solar" Conduits (HSCs) that produce hydrogen the entire length of the rail system during sunlight hours.

Due to the extraordinary length of this rail system, the HydroSol Conduit could produce an excess of hydrogen continuously during daylight hours spanning the continent, says the Interstate Traveler Company. This breakthrough reportedly leverages a phenomenon nationwide that is called "the eight hour guaranteed sunny day".

The Interstate Traveler's transit system is said to use new Automobile Carriers and small passenger/freight carrying MAGLEV cars which 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, reportedly. And it has interested many in the big three Automobile manufacturers, who see it as a way to reduce the operating cost of automobiles drastically, allowing them to comply with emissions standards at the same time as reducing the cost to manufacture vehicles, and increasing demand, since fuel would be so inexpensive and clean.

Recent advances have made it possible to pump Hydrogen into an automotive tank, while cooling it, preventing safety issues and insuring that such as the Interstate Traveler can provide Hydrogen directly to commuters' and shoppers' autos.

The heads of the ACSA (<http://www.acsa.net>) have labored long hours over their slide rules to verify, on

paper, the concept of the Interstate Traveler (<http://www.interstatetraveler.us>).

“We have discussed moving into the final validation stages with the Interstate Traveler Company and have concluded that not only is this a feasible energy and transportation development project, but it is something that would appeal generically to the Auto, Bus, and Air travel Industry- a new venture that could also pay for the cost of fueling their main products: cars, jets and buses/trucks. While initially it may seem costly, from our standpoint, it rapidly pays for itself. So quickly, in fact, that the pain of development is minimized and negligible.”

“We hope to assemble a team to monitor the permit issuance and building of several demonstration legs of the Traveler, so that a live run test of the new slotted electrical engines, its intermediate duty MagLev system, and the hydrogen solar generating conduit (and other facilities) can quickly demonstrate the economic soundness of the Interstate Traveler concept. And, obviously, we’re pretty excited about the idea of autos, people and light freight being able to ride this new system at 250 mile per hour between major metro areas,” stated ACSA scientific chairperson, Jack A. Shulman, adding:

“Frankly, I’m a flight enthusiast and aviation flight control system designer. You couldn’t keep me out of a Jet if you tried. Nonetheless, I doubt Justin Sutton is going to be able to keep me out of the Traveler, either. It compresses that weekend trip 200 miles to Atlantic City for me down to a 20 minute jaunt, and I’d be able to rail to DC or Boston at five times the normal speed, while catching up on a little homework. The whole project is, to me, in a word: Fascinating! They’re really on to something, here!”

An Amazing Solution

Himself a computer scientist and physicist, Dr. Shulman became interested in the automation control of Justin Sutton’s Interstate Traveler "at first sight".

"It represents a unique scheduling, piloting, energy management and maintenance opportunity for any automation system", he indicated, in a recent interview, adding:

“I 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. Everyone has seen that experiment performed in High School Physics class, yet this is the first time we’ve had a broad spectrum functional model that will allow engineering to leverage the phenomenon into an application that will dramatically benefit all of humanity.”

"ACSA is still organizing a substantive validation exercise; however we mainly feel obligated to safeguard the means for Interstate Traveler Company to build its high speed hydrogen-solar rail transportation system and energy product facility without any actual damage to the environment. That, right now, seems very feasible: it should cause no damage at all, and we can control the environmental impact of building it, with the help of appropriate environmental engineering and with the assistance of such as the EPA and DoT. Fortunately, its’ design appears to be literally perfect."

"As it was explained to me: The Interstate Traveler Company intends to build their rail system on and adjacent to the already cleared property of the United State’s massive Interstate Highway system. This insures that egress development can retain the prior investment made by the Federal Government in having built today’s Interstate Highways. Also, quite fortunately, the business model being used by Interstate Traveler

Company enhances the way we travel by our traditional automobiles, SUVs, Busses and Trucks: allowing the Interstate Traveler to carry the vast load of autos and passengers between state metropolitan areas, letting hydrogen powered Automobiles, Vans and SUVs do the rest locally when they off-load. the balance of its excess fuel is then sold to the power companies, industry, and hydrogen distribution Station systems formerly used to sell Gas and Diesel."

"About the only thing it doesn't need from today's automotive transportation infrastructure are barrels of oil, allowing them to be redirected to make profitable lubricants, solvents, chemical derivatives, plastics, and other, more profitable such uses for petroleum, prolonging oil's unique value and pushing off the date that they would eventually run dry at the oil wells, which has recently been projected to be 2045 by some. While I personally do not believe oil wells will run out by then, there are many profitable uses for it when it is no longer needed as the staple for automotive propulsion, and can be replaced with the excess hydrogen produced by Interstate Traveler Systems all over the world. The presumption that the only use for crude oil is to make gasoline is a misconception. By not having to burn it, oil ceases being a combustion air pollutant, which should make its use in plastics and so on more palatable to the environmentally concerned."

"This seems like the best of both worlds to me, assuming the Interstate Traveler Project can be completed successfully. Not only does it combine solar and hydrogen energy forces into a clean and complimentary "symbiosis"-like solution, it also combines the use of light and medium duty high speed mass transit vehicles with the flexibility of ordinary automotive travel. In my view, if it works, it will yield a seemingly perfect mixture of environmental safety, raw performance, cheap sustainable energy, and will relieve America of its dependence upon foreign oil for its future energy sources. We have the utmost hopes that the entire Interstate Traveler Project, all 54,000 miles of its track, can all be made to work. Sometimes there are other issues than technology and adaptability that get in the way of projects of this size, scope and importance."

The results of building the entire system, states the Interstate Traveler Company: enough plentiful excess hydrogen fuel to power local traveling automobiles, trucks and buses, by building this new transit system adjacent to the existing United States Interstate Highway System (known as the Eisenhower Memorial Interstate Highway) at the low cost of about \$10 million per mile, reportedly. Its 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".

With a build time to market of little more than 5 years, according to the company, the entire Interstate Traveler Project should pay for each major segment (breaks even) from its own revenue, within 3 years of each segment's completion. Building it is comparatively easy, aside from the crossing of mountain passes, which has already been done by the Interstate Highway System: that provides a perfect egress for the Traveler, according to Sutton. The Project reportedly intends to use an amazingly innovative, heavily automated rate of construction: about 15 miles of track built per day.

The company also has reportedly consulted with the big three automobile manufacturers and various aerospace companies. It appears that these major forces in each industry have expressed interest in supplying the Traveler's "light to medium duty MAGLEV rail cars" and its other components. According to the Interstate Traveler website, one of the most appealing aspects of the design is that it does not rely on older rail concepts that were driven by large scale, heavy rail engines and cars. The older style rail system design carries with it an enormous weight penalty not present in the Traveler, whose rail cars are much, much lighter and designed to travel at much higher speeds. As anyone in auto racing can tell you: creating a better weight to

power ratio yields more speed with less fuel, and can express itself through various mathematical formula as “the right thing to do at the right time.”

How it Accomplishes What it Accomplishes

According to the Interstate Traveler Company, there are some pretty remarkable consequences of taking the design and business model direction that it has.

Each month, 400 miles of this new rapid transit highway could be built (the approximate distance between Boston and Washington) and pays for itself within 3 years of the opening of a major segment. Cross country, an entire 2500 mile length can be built in 1 year from NYC to Los Angeles, and pays for itself within 3 years. Three such projects, in only 1.5 years, could link a northern, southern and central route producing connections between 75% of the major metro areas in the United States.

At the end of three years, nearly three quarters ($\frac{3}{4}$) of the hydrogen the entire track produces becomes freely salable to business, industry, and the general public for power consumption in homes, offices, industry and municipal utilities' usage. Only one quarter ($\frac{1}{4}$) is ever used to power the transportation system itself, at maximum load. To compliment its own ability to be easily maintained and safe to operate, the entire Interstate Traveler system was designed to provide for only two or three basic types of "universal" medium duty rail vehicle platforms, each adaptable to a limitless range of "Travelers": one to carry one or more automobiles or other vehicles to a specific destination, the others to carry interstate commuters in small groups or to perform utility functions. The commuter version is also designed so that it can be equipped to carry freight and packages. Other types of "Travelers" are also on the drawing boards. Small "on and off" stations at various locations would allow individual Traveler Vehicles to pick up and drop off Autos “all over the place”, stated the Interstate Traveler Company, and would provide other services needed by the system. Surprisingly, it is all this "scaling to fit" in the Traveler's design that makes it all feasible!

For example, while not suggesting such should be abandoned, plans that require huge, centralized solar energy plants require enormous land areas to gather enough sunlight. The Traveler does not require such vast tracts; it gathers light along its entire length, 54,000 miles and delivers power where it is needed at a minimum of overhead. To store the power, it uses hydrolyzation to convert water to Hydrogen.

Furthermore, centralized solar energy plants also have a problem delivering the power they make to distant locations, requiring many large plants and long distance AC transmission (with considerable waste and loss) to get power to a usage area. The Traveler maintains a continuous conduit its entire length, along which it uses successive hydrolyzers to convert solar energy to hydrogen, with storage of the hydrogen along its entire length in safety storage tanks. Its a safety conscious design provides “hydrogen tanking up” Service Stations at every major “on and off” station, and low overhead hydrogen pressure driven transfers within the length of the conduit to keep every station at full capacity nearly all of the time.

Safety doesn't end there; fire blockades and control systems, and tamper proofing security have already been carefully thought out and planned for. It is believed it would be virtually impossible to sabotage a system so large, as even in the case of terrorist attack, only a small portion of the Traveler would be effected, and security provisions provide for rapid response, and ease of effecting repair. Up to a 15 mile segment can be entirely replaced in a single day.

The Traveler's "Service Stations" are distributed at convenient locations where they can provide hydrogen to autos that use the Traveler, and can provide local hydrogen to automobiles, trucks and buses in each

metropolitan area. Additional hydrogen would be off loaded at "master distributors" which would then provide it to electricity producing plants for the nation's power grid. Also, hydrogen would be provided to delivery systems which own their own hydrogen pumping stations to serve the hundreds of millions of automobiles at use in America. And remaining hydrogen could be used for other purposes, such as by industrial plants and air and space travel.

Amazingly, once the entire 54,000 miles of Interstate Highway are eventually built out with accompanying Interstate Travelers, an enormous (as much as) 85,000 Mega Watts of energy might be achievable by the entire Traveler system, continuously during any 12 solar hour period. That power is actually stored by converting it to Hydrogen, hydrogen converters, producing clean burning hydrogen from ordinary water. That Hydrogen is then stored and used to power internal combustion engines and fuel cells on demand, wherever needed, both within the Traveler's system, and sold outside to the nation's vast energy consumptive industries. By the way: that's 1 Terawatts Hour per 12 hour sunlight-day, an enormous amount of energy!

Using the conversion formula, multiply 3414 times each kilowatt hour to calculate the common form of energy called BTUs. Believe it or not, the entire Traveler system could, if Interstate Traveler Company is successful, produce an amazing 3.4 Quadrillion BTUs every day of sunlight! That is considerably more than the combined demand for energy of the entire United States each day.

Due to the desire to work efficiently, the initial build plan for the Interstate Traveler appears to be targeted at producing only 1/3 that amount of power (1.1 Quadrillion BTU for every 10 sunlight hours). Accounting for the weather, that would produce about 300 such periods per year. That would calculate to as much as 330 Quadrillion BTUs of energy per year.

Assuming a very aggressive estimate of loss, assuming the system would lose about 40% due to various overheads and production costs, and 20% of the remaining amount for operating the Interstate Traveler, that would leave about 120 Quadrillion BTUs of energy (in hydrogen gas) left over each year for ordinary business, government, industrial and consumer usage.

To give one an idea of how beneficial this might be: According to statistics, in the USA we consume 98 Quadrillion BTUs of energy every year, according to the Secretary of the US Department of Energy. He has indicated in recent speeches that the Department of Energy expects the US to be consuming 120 "quads" per year in less than 20 years.

What this means, potentially, to America is this: the finished Interstate Traveler could at almost no cost become the source of all that energy, thereby eliminating America's sole dependency upon petroleum sources both domestic and foreign, for energy, allowing petroleum to be used for other, more profitable purposes.

Because the Traveler is so large a system, securing it is reportedly relatively easy, by design, and because of its size, a natural redundancy insures that it would be extraordinarily difficult to bring its hydrogen production to a halt, and easy to repair it. Security includes camera systems, and high speed emergency response units that can reach any problem in seconds or minutes from the nearest local station.

"The Secret Process"

The Interstate Traveler Company has also indicated that its "secret process" might be of keen interest to Environmentalists.

What they are referring to is the process the company is using that it states reverses the Hydrogen back into energy. The hydrogen powered internal combustion engines and hydrogen fuel cells are used to produce electrical energy and motion. According to Sutton's team, such energy converters return most of the water that was split into hydrogen and oxygen by the Interstate Traveler's HydroSol Conduit, back into the environment as clean, distilled water: yielding a net gain in oxygen and a small amount of heat. It even carefully replaces the heat from the Sun that was used by the HydroSol Conduit's solar panels to power the hydrogen production process.

It is a scientific fact, according to the company, that the methods Interstate Traveler Company has designed into its transportation system are among the cleanest, most efficient means of producing energy for our use. The Interstate Traveler appears to marginalize the need for other energy sources, since its designers can always expand the number of HydroSolar Energy Conduits built along the Interstate Traveler's rail system, multiplying the available hydrogen being produced.

Infrastructures to bring in clean water (much of which can be retained by the system that powers the Interstate Traveler, and recovered from Automobiles when they "tank up" at ITC Hydrogen Stations) are being planned for, according to the company, as is the entire complex of manufacturers to build the Traveler, and to supply Hydrogen Powered Traveler Vehicles and consumer and other Automobiles by the Interstate Traveler Company and its industrial partners, at this time.

According to the Department of Energy, the United States spends over \$500 Billion Dollars on energy annually (which equals ½ a cent per BTU of energy).

The entire cost of building the whole Interstate Traveler would net to about \$650 Billion and would pay for itself in three years, reducing the cost of energy by \$500 billion dollars per year, and likely bringing back the cost of fuel to the automobile driver down to 1/10th today's cost or less. That would have the effect of returning fuel costs for autos back to their pre-1963 levels! The ACSA has commented: "If this is truly the result, then what we are talking about here is nothing less than a miracle."

The Interstate Traveler Company's figures seem to suggest that the overall impact of the Interstate Traveler will be to drive the value of petroleum fuels down to their pre-1963 prices and eventually will yield a viable alternative when the world's petroleum fuel reserves run dry, which some have said may happen by the year 2040..

For more background information of the ACSA's mentorship of the Interstate Traveler Company, visit ACSA's story on the subject at <http://www.acsa2000.net/hshrt/> (RSS FEED: <http://www.acsa2000.net/feeds/hispeedhydrorail.xml>).

Closing Note

ACSA indicated it would be assembling a validation / demonstration team with Interstate Traveler Company over the course of the following six months to a year, and that it hopes to break ground on a Boston, MA to Hartford, CT, to NYC, NY to Baltimore, MD to Washington, DC to Atlanta, GA to Miami, FLA Interstate Traveler (to be called the North-to-South East Coast Trailblazer) as a demonstrator. It would follow the path of the famed Route 1 and the interstate highways that were built in the 60's to carry commuter loads along those routes.

It is hoped by the ACSA that, assuming all the technical and other issues are worked out properly during this

development period, that sufficient funding and profit will emerge as a result, to empower building of three more major runs cross country through major metro areas from the east coast to the west coast, and two more North-to-South runs from Illinois southward and from the Pacific Northwest to the Baja, California thereafter. It is felt that upon completion of these major routes, that the balance of the system would be built out without much further ado over the course of three to five years.

As a mentor, ACSA provides understanding, guidance and assistance where possible to subject companies such as the Interstate Traveler Company with extremely innovative business idea. Notwithstanding the foregoing, all responsibility for the Interstate Traveler Project, its success or failure, and its accuracy in disclosure and feasibility rests solely with the Interstate Traveler Company and its staff. ACSA has publicly stated it is "extraordinarily pleased with the integrity and accuracy of reporting seen, to date, from Justin Sutton and the Interstate Traveler Company."

ACSA is at this time anticipating widespread support for the Traveler among its business affiliations and the membership. For more information, please contact the Association through the press contacts on this article.

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