A Potential Partial Solution to our Oil and Energy Problems

By Louis P. Solomon with Dick Van Orden

Iraq, Venezuela, Nigeria, and other oil producing nations around the world are experiencing political instability. There is a rumor that Iraq oil is substantially less than has been predicted. In effect, while we are not running out of oil at the moment, it is clear that the world's ever increasing demands for energy will mean that the day when there will be no more oil available is approaching. Is there anything that can be done about it?

In the past few months I have written about various methods that might ameliorate this problem. There is, of course, ethanol as developed and used by Brazil. There is the promise of nuclear fusion reactors, which will generate electricity forever from seawater. There are lots of different technologies that could contribute to solving the long term energy problem. One solution that appears to have great potential is the concept of powering vehicles with water.

This concept, always historically pictured as pushed forth by pointy-headed scientists, and ruthlessly suppressed by the giant oil companies, may, or may not, be true. But, today is a different world. There is such a product that may work. The reason for my hesitation to state flatly that it will work is simply that there are many steps between having something work in a laboratory and have it be used by millions of people throughout the world. The issues of cost of development, engineering, cost for operation, and repair all arise in strange and subtle ways.

Doug Bender, President of HyPower announced on 12 December 2006 that his company recently demonstrated that, using water only, they could run a Volkswager GTi. They installed an H2 Reactor (H2R) hydrogen system that produces sufficient hydrogen on board to power the vehicle. The detailed web reference is http://www.greencarcongress.com/2006/12/hypower_fuel_mo.html. Currently the H2 Reactor requires 1 watt hour to produce 1 liter of hydrogen which is approximately 2 to 2.5 times more efficient than the current performance of competing technologies. Is this the answer to our transportation problems?

HyPower management is quick to point out that these are preliminary laboratory results using prototype H2R units and will require considerable improvements before any practical transportation application can become a reality. The company plans to host a number of live demonstrations in early 2007 with independent experts in attendance to monitor and verify resulting data.

It appears that HyPower has successfully created a situation where a car could run on water and produce virtually no harmful emissions or greenhouse gases. But, it is difficult to overcome all the problems associated with generating a new power source. If Mr. Bender is correct, the use of the H2R process could substantially ameliorate the green house gas emissions, and the source of fuel could be waste water from our sewage treatment plants. How about that for multiple use of our own waste products? And, it will utilize not our scarce supply of fresh water, but only that water that has been chemically cleaned and purified.

Is there a way for this possibly wonderful technology advance to proceed with alacrity and vigor? Yes, there is. Last May, 2006, the House of Representatives passed a bill where scientists, inventors and entrepreneurs will be able to vie for millions of dollars in prizes, including a grand prize potentially worth $50 million, under House-passed legislation to encourage research into hydrogen as an alternative fuel. The measure would award four prizes of up to $1 million every other year for technological advances in hydrogen production, storage, distribution and utilization. One prize of up to $4 million would be awarded every second year for the creation of a working hydrogen vehicle prototype. The grand prize, to be awarded within the next 10 years, would go for breakthrough technology. The bill caps the federal contribution to that grand prize at $10 million, but additional contributions from private sources could pad the total payout to $50 million. While this seems like a lot of money to the average man on the street, I would like to remind everyone that we are spending about $ 1 Billion per day operating in Iraq. The Senate was supposed to have passed the bill as well.

This effort may come to nothing. The car that runs on water may be just a fluky device that widens the eyes of

our science geeks, but the cost to actually make it work as part of the United States economy, and then the world, might be prohibitive. But, consider the problem from the other end of the telescope. What if it can be done? What if it is possible and progress is made in the next 10 years? Then we will have made an enormous stride in making ourselves energy independent, as well as helping our warming planet. Isn't it reasonable to make the effort to try, rather than be a nay-sayer.