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*Harnessing a renewable power source*

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**The automotive industry is involved in developing hydrogen powered vehicles like the Honda FCX. Is it going to be government or private industry that leads the way to affordable hydrogen-powered vehicles for the general public?**

The question has a few elements to it that need to work together to achieve success. It starts with the auto company's development of a vehicle that the average consumer can afford to buy and wants to buy. Since 1999 a total of 1.3 million hybrid electric vehicles have been sold in the United States. That is .78 percent of the total amount of vehicles. This is a vehicle that is commercially priced, reliable and reasonably stylish by most accounts and it still is only a very small percentage of the market. Consumer behavior, especially in the United States, dictates that the features and benefits of today's gasoline automobiles must be replicated in these advanced technology platforms for wide market acceptance.

Now, the good news in all of this is that a hydrogen fuel cell vehicle drives and acts just like a regular gasoline vehicle. I have personally driven most of the latest technology fuel cell vehicles and they do not sacrifice the critical elements of the gasoline equivalent model. So, the technical ability and styling ability are already present in the auto companies. In addition, the auto companies have indicated that in commercial volume they can produce the vehicles at an acceptable consumer price. Therefore, industry leading this area makes the most sense.

Government has a very important role to play as well in this market introduction. Early adopters will pay more for the vehicles but subsidies and tax credits will likely be necessary to drive early demand - much like we have seen with hybrids. However, the most critical role for Government is on the infrastructure side.

The conclusion is simply that a public/private partnership must exist for success. Government's role will be larger at the beginning when the commercial market forces are not fully at work and will reduce quickly as the demand and supply of vehicles increases.

**Where else is hydrogen power going to be used in the future that we're not aware of yet?  
Will fuel cells power laptops? Refrigerators in areas of the world without electricity?**

The great thing about hydrogen is that it is a wonderful energy carrier. It can be made from water using renewable or grid electricity so the eventual uses are almost limitless. If you think of an application that uses a battery today, it could be powered by a fuel cell running on hydrogen. Great strides are being made in fork lift markets for large distribution centers, backup power for cell phone towers and data centers where critical power needs are extremely important, laptops and cell phones with micro fuel cells using advanced nano technologies and large stationary fuel cells for primary power that use natural gas as a feedstock for the hydrogen and provide power as well as heat for hot water.

In off grid applications, especially outside of the United States, renewable technologies like wind and solar will be deployed cost effectively since it is often too expensive to run wires from central power plants to remote villages. Since the wind does not always blow and the sun does not always shine, hydrogen is used in conjunction with the renewable asset to make and store excess electricity as hydrogen. When the renewable asset is not producing enough power for the load, the hydrogen is run back through a fuel cell to make up the difference in power. The hydrogen can further be used as part of the transportation network for the village. This level of sustainability for these off grid villages is crucial for many developed and developing countries around the world.

**On a different note, how has Proton Energy changed since its acquisition in 2008? What opportunities have presented themselves with new ownership?**

The transition with our new owner has been terrific. He was and still is a big supporter dedicated to helping us grow the business and address new technologies and opportunities. Tom Sullivan is an entrepreneur in every sense of the word having founded numerous companies before achieving side success with Lumber Liquidators.

Since the acquisition in July of 2008 things have been pretty stable. The business model has not really changed. Proton had and continues to be focused on building a sustaining profitable company on today's hydrogen markets while leveraging contract research and internal dollars to position our technology for tomorrow's energy markets like fuel for transportation and energy storage with renewable technologies.

The main thing that Tom has brought is a new aggressiveness and willingness to pursue and strengthen our existing markets as well as explore new markets. Under our previous parent company, Distributed Energy Systems, most of the attention and capital was focused on growing our sister division in Vermont, Northern Power Systems. Now we are free to expand our products and technologies as the business dictates and we are doing so.

In the past several months we have announced large efforts with United Technologies Hamilton Sundstrand on submarine life support that has also served to leverage us in to other opportunities for military and aerospace applications. Tom is investing in our high pressure technology for backup power applications and larger systems (alongside TARDEC) to move the fueling

platforms along quicker. These efforts are also attracting additional partnering opportunities that we expect to announce as appropriate.

While the economy has certainly made things difficult for everyone, Proton will see at least 20 percent growth in revenue over 2008 and has been selectively hiring in key engineering and other positions to facilitate current and future growth.