

## Team Players

### Altenews President Russell Hasan Calls for Peace Between Advocates of Ethanol, Hydrogen Fuel Cells, and Electric Vehicles

“A house divided against itself cannot stand. An alternative fuels movement with infighting and bickering will not last.”

Hybrid cars, ethanol, and hydrogen have all seen growing popularity as ways to fight the “triple threat” of global warming, declining oil production and the need for energy independence. Because of this, the major car companies have all become very supportive of alternative energy. Ford has announced plans for a “Tri-Flex-Fuel” SUV/truck, capable of running on gasoline, hydrogen and ethanol. Ford is also working on a line of hybrid cars, showing that the same company can support ethanol, hydrogen, and hybridization as alternative fuels. Mazda, Honda and others are also testing fuel cell cars, DaimlerChrysler is experimenting with fuel cells and clean diesel, while GM continues to promote ethanol-powered flex-fuel cars, and Toyota pursues leadership in hybrids. It makes us optimistic to see alternative fuels becoming so widely accepted among the major car companies. However, as these fuels have become popular, conflicts between their advocates have erupted. Renewable energy promoters argue about whether ethanol, hydrogen, or plug-in hybrids and electric cars are the best way to end the dependence upon politically unstable oil imports, fight climate change, and end the addiction to oil. This debate has grown into a full-scale war between the supporters of these three rival alternatives to gasoline. Competition is healthy, but this renewable fuels war has reached dangerous proportions.

These groups seem to use the same arguments against each other. Electric car advocates claim that hydrogen is a conspiracy by Big Oil to prevent real progress, because fuel cells will take too long to commercialize, and hydrogen will be too expensive to make. There is an ongoing debate about how long it will take for hydrogen research to produce commercial fuel cell vehicles, with some saying four years and some saying forty years. The claim was made famous in the pro-electric vehicle movie “Who Killed The Electric Car?” that hydrogen advocates are “guilty” of helping to kill the electric car in California. The book “The Hype About Hydrogen” by Joseph Romm also claims that fuel cells are a ploy by Big Oil to delay alternatives to gasoline, and says that hydrogen could be made from polluting fossil fuels instead of renewable energy. Critics of hydrogen say that hydrogen takes the same amount of energy to produce as it releases in automotive fuel cells, meaning that there is no net energy benefit from hydrogen use. In eerily similar fashion, some prominent hydrogen fuel cell advocates say that ethanol is a conspiracy by Big Oil, because, according to them, ethanol takes more energy to produce than it releases in flex-fuel motor engines, and so has no net energy benefit. They claim that most renewable energy subsidies go to ethanol, and not enough goes to hydrogen research, and therefore ethanol is stealing government funding from hydrogen. Both hydrogen advocates and ethanol advocates try to marginalize electric cars by not including hybrid technology in the mainstream dialogue of alternative fuels, and they also say that plug-in hybrids have had their chance and were a commercial failure, as shown

in the case of California's CARB electric vehicle mandate, which is the subject of the electric car movie. This is a claim that "Who Killed The Electric Car?" disputes. In general, the promoters of hybrids, ethanol, and hydrogen are all fighting against claims that their alternative fuel has no advantages, and they are savagely attacking the rival alternative fuels in an effort to bolster their own image.

This is not helpful, because the best way for renewable energy to succeed, and to not be sabotaged and blocked by the well-funded fossil fuels industry, is for all renewable energy advocates to be unified and to stand behind the common goal, which is clean, green, pollution-free energy and national energy independence. Hybrids, ethanol, and hydrogen each have different advantages and disadvantages, and none is obviously superior to the other two. Hydrogen fuel cells need more research to be commercialized, and this research could take several years to complete. Ethanol has food vs. fuel problems which may lead to a corn shortage, and ethanol use is not very popular. Hybrid cars are also not very popular, and most drivers do not even understand how electric vehicles work. There is credible science that indicates that ethanol, hydrogen, and hybrids all reduce pollution and promote energy independence. The people promoting these new technologies should be focused on comparing their products with gasoline, not with the other alternatives. Alternative fuels are so named because they are alternatives to gasoline, and their purpose is to compete with gasoline, which currently dominates the automotive fuel industry, not with each other. Big Oil is the main force that opposes these alternatives. It has been shown that lobbying by special interest groups funded by oil, coal, and nuclear are attacking the wind power industry, and many suspect that the fossil fuels lobby is also responsible for much of the opposition to alternative fuels. The oil industry posts billion dollar profits every year, they would like to prevent alternative fuels from competing with their main product, gasoline, and they have the money and the lobbyists to exert political influence against renewable fuels. Rather than nitpicking the flaws of the other alternatives, all green driving advocates should present a united front against external opposition.

Spokespeople for these hydrogen, ethanol and hybrids are divided on the matter. Some advocates promote the war, while others are worried. Chris Paine, director of "Who Killed the Electric Car?", makes it clear both in his movie and on his website that he thinks hydrogen is a conspiracy by Big Oil to delay alternatives to gasoline from developing. Rick Masters of the International Clearinghouse for Hydrogen Commerce supports the theory that ethanol steals research money from hydrogen. On the other side, Jennifer Gangi of Fuel Cells 2000 told us that she thinks that "it's bad that it's a competition. They should be complementary. Ethanol could be used to make hydrogen." Company executives also have mixed opinions. Gary Starr, the Chairman of electric vehicle company Zap, when asked about competition between hybrids and hydrogen, told us that "the infrastructure for EVs is a lot easier to implement, it is available through a garage plug. We have a prototype hydrogen fuel cell vehicle at ZAP, but it is difficult to get it refueled. Customers can fuel EVs in their garage, the infrastructure is here today. It is an easy way to get off of using gas." Byron Fink, President of Golden Triangle Energy, an ethanol company, told us "I do not see a competition in the near term. I think somewhere out in the future (competition between ethanol and hydrogen might happen).

Our studies show that as a fuel source for hydrogen, ethanol is better than some of the other things. Looking out in the future, maybe ten years from now, both cellulosic ethanol and hydrogen are well in the future. I have another comment also. The fuel cell is going to take a complete restructuring of our fueling infrastructure. That will take a long time. To change the whole fueling system, breakthroughs are needed. That is a long time in the future.” The California Air Resources Board, accused of favoring hydrogen over hybrids in the Electric Car movie, declined to give us a comment.

Some industry people are for peace and an end to the renewable fuels war, and some are not worried about competition right now. However, it is clear that many renewable fuel supporters welcome the conflict between alternative fuels and are willing to see sharp divisions in the alternative energy movement. This is a sad state of affairs for renewable energy. There are ample opportunities for flex-fuel, fuel cell, and plug-in hybrid cars to provide significant help in preventing climate change and helping energy independence. With oil at \$70/barrel and gas at \$3/gallon, they can all compete effectively in terms of price. Big Oil is still dominant in the energy industry, and it is the main competition for renewable fuels. It is also clear that the anti-renewable energy lobby would like to see all three of those fuels stopped. It would seem strange for three players on a baseball team to swing the bats at each other’s heads instead of swinging their bats at the ball, yet this is what is happening with Team Renewable Fuels, and it can only benefit the anti-renewable energy lobby. Altenews President Russell Hasan says that “a house divided against itself cannot stand. An alternative fuels movement with infighting and bickering will not last, because renewable energy is not established enough to survive a civil war.” The major car companies have embraced ethanol, hydrogen, and hybrids, and the market can support all three of these automotive energy solutions. Supporters of ethanol, hydrogen, and electric cars need to learn how to be team players, so that they can stop attacking each other and focus on competing with gasoline.