United We Stand — Divided We ... Run?

By Jeff Reinke, Editorial Director, Chem.Info

It’s not a new problem, per se. The need to improve energy usage trends and implement more efficient approaches has been a relevant topic long before Al Gore invented Power Point presentations or President Obama campaigned on a pledge to overhaul our national grid.

What is new is the debate surrounding the slew of potential solutions. What priority should they be given? What approach is deserving of government subsidies? Should supply and demand be the ultimate weapon on choice in thinning out this herd of options?

All of these alternative technologies and the collective abundance of questions they generate lead me to wonder if it would be better to try and unite on one front in developing an energy approach for the future, instead of siphoning billions of dollars towards a slurry of new waste-composed biofuel methodologies for producing ethanol and methanol or wind power or solar power or electric transportation vehicles or …

Granted, I have my opinions on which methodologies I think will work the best, but let’s put that aside for right now, and for those of you knee-deep in a response championing your “obvious” choice, I’d ask for the same courtesy. The bottom line is that each approach has its positives and negatives — all of which are worthy of debate, but that type of dialogue is what I perceive as the biggest potential issue.

Using the capitalist approach of social acceptance and wide-spread buy-in as the ultimate metric in determining the winning methodology is fine, provided we’re willing to accept that winner even if it does pose longer-term issues. After all, the ugly truth is that we’re a society driven by price and convenience. So in the face of initially higher prices for these alternative energy sources, the majority of consumers will gravitate towards the cheapest and easiest methodology — that’s why we still burn coal and have a limited number of E85 gas pumps.

Hybrid cars are neither cheap nor easy to maintain and repair — which, along with performance sacrifices, is probably why less than 1 percent of vehicles on the road today are of the hybrid variety. Coal is cheap and easier to burn in generating power than sorting through food scraps, growing algae or developing some other feedstock to run through a special digester in order to produce electricity. Hydrogen, believe it or not, is still a viable option in many people’s minds as a transportation fuel source.

Seemingly unlimited funds are being thrown at all of these energy answers, which leads me to an unyielding belief that we've already found the solution to our problems. But is this ongoing debate over the best approach hindering its implementation and doing more to preserve the status quo? It reminds me of a "new" technology on its way towards mobile and commercial cooling environments.

In the name of reducing greenhouse gas emissions, refrigerant use has changed a number of times in these applications over the course of the last 20 years. This has led to wider spread use of carbon dioxide as an alternative to chemical refrigerants like Freon, as it is able to perform even more efficiently and without the harmful emissions. It's facing some resistance because of the higher operating pressures it demands, but it seems to be more about when, as opposed to if, CO2 will replace R-134a in a number of cooling applications.

The kicker here is that CO2 has been used in this manner at the beginning of the 20th century — it's far from a new technology or application. Yet think of all the development dollars and negative environmental impact that was registered over the past 100 years in order to come full circle.

We live in a time of great potential and promise in answering our energy concerns. The question that remains is if a divided approach will deliver the most powerful solution.

What's your opinion on what our approach should be? Drop me a line at jeff.reinke@advantagemedia.com [1].

Comments:

Jeff,

You should read the book, "Energy Victory: Winning the War on Terror by Breaking Free of
makes a convincing argument that ethanol and methanol are the most viable path to energ
term. He states that the government could start a chain reaction toward energy independe
mandating that all new vehicles sold in the US are flex-fuel capable. He makes a point that
capable of on-the-fly automatic adjustment for any combination of ethanol, methanol and g
technology allows with only about a hundred dollars of additional expense per vehicle) the
itself. In short, demand will cause supply to be created as companies follow the available cu

Note that this technology would allow you as a consumer to fill up with whatever was availa
get E85 for a good price, you can use it. A few days later if all you can get is gasoline you c
could use M85 if that was the best deal available. This creates a situation where there is tru
gasoline and other roughly equivalent fuels. Imagine that!

He also makes the point that although methanol is less energy dense than either ethanol o
from food crops, but rather from natural gas, forestry residue and other cellulosic material,
today's production volumes that don't include major fuel production plants. (Currently it co
wholesale.) It is also less toxic than gasoline and more environmentally friendly, since any s
degradable (this applies to both ethanol and methanol).

Brazil has already done this, with dramatic success.

Regards,

Keith

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[1] mailto:jeff.reinke@advantagemedia.com