Global Automotive Aftermarket Symposium 2014 Turns Its Glance Back To The Future

By Phil Sasso

In the 1985 movie Back To The Future, Canadian actor Michael J. Fox travels through time in a plutonium-powered DeLorean time machine. In the last scene, inventor Doc Brown shows up with a reboot of the DeLorean powered by a Mr. Fusion Home Energy Reactor that converts trash to energy for the vehicle.

Although no trash-powered vehicles or time machines were mentioned at the 19th annual Global Automotive Aftermarket Symposium (GAAS) in Chicago this spring, some of the on-market and near-market technologies featured would seem as futuristic and far-fetched as Doc Brown's time machine.

The two-day educational and networking event brings together industry leaders and experts to discuss issues and trends affecting the worldwide automotive aftermarket and influencing its future. This year covered topics from telematics to alternative fuels and the economic outlook to investments in the aftermarket by Wall Street and private equity.

Fuel For Thought

Corporate Average Fuel Economy (CAFE) regulations in the United States are driving automakers to produce cars with higher fuel economy and lower emissions. The demands are driving more OEMs to develop alternative fuel and hybrid vehicles and seek to launch them in Canada and the entire global marketplace.

First, let me assure you that although there are many alternative fuel technologies vying to become number two in North America, the consensus at GAAS seemed to be that nearly all the cars coming to your shop for the next five to 10 years will be still running on gasoline or diesel — with a few hybrids thrown in the mix.

There are several reasons for this: there's still a big development curve; consumers are a bit wary of unproven technology; and there is no infrastructure for providing many alternative fuels. Besides, even if a "trash-powered car" came to market tomorrow and was snatched up by tens of thousands of consumers, the OEM warranty would cover it for several years before you would need to train and tool-up for it.

Derek Kaufman, CEO of Mission Motors (www.ride-mission.com), an electric powertrain engineering consulting group, covered the current state of a list of alternative fuel technologies currently in development. Here is a summary of his take on two of these fuel sources:

A map of Shell's oil fields in North America represents over a one 100 year supply of natural gas.

Natural Gas

"It will change our industry," says Kaufman. "One of the things about natural gas is the supply of it. But the other thing is that it [costs] US$1.50 basically a gallon [less] than both gasoline and diesel. So trucking has already adopted this. They've gone CNG for local fleets and LNG for the long-haul fleets."

CNG (compressed natural gas) and LNG (liquefied natural gas) have been used in the transportation industry for about 15 years and have proven easy-to-use, safe and reliable.

But for automotive use, there are different considerations, says Kaufman. "It's all about the cost of natural gas compression and the tankage on the vehicle. If you look at an engine, a natural gas fuel system is not wholly different than a gasoline system or a diesel system. But the tankage on the vehicle is everything."

"Think about the fact that 50 per cent of our homes have natural gas in them," continues Kaufman. "With a US$500 compressor, people like GE and Eaton and Phill now are bringing out machines to put on your garage wall, bring your natural gas car in, and basically fill [a vehicle] overnight just the way a Tesla owner charges their car overnight."

On the commercial front, GE is developing "CNG in a box" technology. CNG in a box is a 400 horsepower high-speed reciprocating compressor and it fills a car at 12.5 gallons per minute.

"That's basically what a gasoline pump does at any station," said Kaufman.