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Canadian Healthcare and Electric Cars

The Canadian healthcare system didn't happen by fiat, it had to be fought for and the man leading the fight was a Saskatchewan minister turned politician. 30 Sep 2009

The Most Expensive Car on the Block

He owns Toronto Electric, manufacturers of industrial cranes and electric motors. And now, after two years development, he also owns one of the neatest little EVs this side of the Canadian-U.S. border. 28 Sep 2009

Lithium From A Canadian Perspective

Canadian Lithium Corp's Kerry Knoll discusses at PHEV'09 the prospects for lithium production as the auto industry moves to introduce electric cars requiring this lightest of all metals. 28 Sep 2009

Of Dysprosium, Neodymium and Other Wrinkles

More than 40 electric cars debuted in Frankfurt, a clear indication that we're on the road towards an EV World, but bumps, potholes and potential detours still lie ahead. 27 Sep 2009

FEATURED THIS WEEK

Are We Ready for 2012?

Opening keynote speech at PHEV '09 Conference, Montreal Canada 30 Sep 2009

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PHOTO OF THE WEEK: Yike Bike has to be one of the most innovative electric bicycles yet developed. Constructed of carbon fiber, the electric bicycle weighs just 10 kg (22 lbs). Powered by lithium ferrous phosphate batteries, the Yike has a top speed of 20 km/hr and range up to 10 km. Maximum carrying capacity is 100 kg (220 lbs). Watch the YouTube Yike Bike video here.

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TOP 20 NEWS LINKS

Click here to view the complete list of all the stories archived on EV World in the last seven days.

Yikes! This Bike's Electric

Source: Alibaba.com **Published:** 25 Sep 2009 Carbon fiber Yike Bike is powered by chainless electric motor and lithium batteries with range of up to 10 km at 20 km/hr.

GM Develops Generation Two Fuel Cell

Source: General Motors **Published:** 27 Sep 2009 Stack is half the size, 220 lbs lighter and uses less precious metals than current system in Chevy Fuel Cell Equinox.

Infiniti Essence Hybrid Concept Shatters Stereotypes

Source: Asian Week Published: 28 Sep 2009 Lithium ion batteries help power the 158 hp electric motor.

Volvo to Offer Diesel Plug-in Hybrid in 2012

Source: Volvo **Published:** 27 Sep 2009 Volvo's PHEV will have combined driving range of 1200 km (745 mi) while consuming fuel at a rate of just 1.9 liters/100km (123 mpg).

Rebutting Mr. Tamminen's Battery Electric Car 'Myths'

Source: CalCars **Published:** 30 Sep 2009 CalCar's founder Felix Kramer responds to NAF Senior Fellow Terry Tamminen's assertions about the shortcomings of battery electric cars.

The Future of Cars Was Hydrogen,

My Montreal Keynote

Around the time you'll be receiving this edition of Insider, I'll be nervously walking up to a podium in Montreal, Canada to deliver, if you can believe this, the keynote address at the PHEV'09 conference. You may find that as remarkable an incongruity as I do. I am usually the unobtrusive guy in the back of the room with a digital recorder or video camera capturing someone else's presentation, but not this time. And depending on how it goes, this may be the first and the last time I agree to such folly.

I've been sweating this thing for a week now. I woke up at 2 am this morning (Sunday), laid there awake for two hours and then got up to tweak my speech, entitled "Are We Ready for 2012?," and its accompanying Powerpoint (actually I use Apple iWorks Keynote) The talk is a take-off on my "What's With 2012?" commentary last week. It focuses on two key areas: vehicle deployment projections and potential obstacles, the latter classified into four "phenomena" - resource availability, energy issues, infrastructure issues and policy concerns. I have twenty-minutes to cover a lot of ground, so I've tried to make the script, from which I am going to read, as tight as possible, because I tend to go off track when I rely just on my powerpoint notes.

I hope to be able to either audio or video record it for subsequent use on EV World. And I do have to say that this is a huge honor and I am grateful for being asked to play such an important role in the event.

AONE Surprise

Last week was full of surprises, all good. The first was the successful A123 Systems (Nasdaq symbol AONE) IPO offering. Despite never having made a profit and on-going patent infringement litigation with the University of Texas at Austin and HydroQuebec, one of the key sponsors of the PHEV'09 event in Montreal, the company's share not only opened above the \$10-11.50 range touted by Morgan Stanley and Goldman Sachs, A123's IPO backers, it also closed at \$20.29, 50% higher than its \$13.50 opening share price. The next day, Friday, September 25th, it dropped to \$19.60, but by this time, I suspect MS and GS had made a tidy little profit, as well as their advisory fees. A123 got the capital infusion it was looking for. Now let's hope they find a way out of the swamp of red ink and into the black, so shareholders can also celebrate.

Detroit Moves Into India

The next big surprise was GM's announcement that it was partnering with Reva, the Bangalore, India-based electric car company, to develop an allelectric version of the Spark, destined for sale in India. Reva has sold some 3,000 cars into more than 20 countries, including Britain, where it is known as the G-Wiz. While Reva introduced its own new models at the Frankfurt Auto Show, its understanding of the Indian consumer market, as well as

Once

Source: NY Times **Published:** 27 Sep 2009 Alan Salzman worried VantagePoint was putting hundreds of millions into a golf car when it backed Tesla.

ZENN to Cease Electric Car Production, Shifts Focus to E-Drive

Source: CBC News/Canada **Published:** 30 Sep 2009 Toronto-based company found itself losing money and losing out on \$10,000 tax credit program in Ontario.

The Myth of the Battery Electric Car

Source: New America Foundation **Published:** 30 Sep 2009 Former environmental advisor to Governor Schwarzenegger castigates battery electric cars in favor of hydrogen fuel cell ones.

Crude World

Source: Ny Times Published: 27 Sep 2009 Michael Hirsh review of Peter Maass's new book, 'Crude World: The Violent Twilight of Oil.'

Hope Revived for Hydrogen Cars

Source: Detroit News **Published:** 25 Sep 2009 Obama administration has dropped its opposition to reinstating \$100M in hydrogen research funding.

Chinese Investors Plan Alabama Hybrid Car Plant

Source: WHNT TV **Published:** 25 Sep 2009 Vehicle will be powered by multi-fuel drive system using natural gas, gasoline and electricity.

Robrady, DK City Reveal New Folding Electric Bicycle Design

Source: eMediawire **Published:** 25 Sep 2009 The bike is scheduled for release to the market in the first quarter of 2010.

How Big is the Battery Market for Electric Vehicles?

Source: Azom **Published:** 28 Sep 2009 Until costs of lithium batteries drops, the market for electric-drive vehicles cold remain relatively small, article argues.

VW, Varta Form Electric Car Battery Joint Venture

Source: Reuters **Published:** 27 Sep 2009 Goal is to develop lithium-ion batteries that are competitive technologically and in price.

Two US Electric Utilities Plan Fleet Switch to Plug-In Vehicles electric car technology, appears to have attracted General Motors. The two companies have been conducting joint feasibility studies for some 10 months prior to making their announcement.

Both India and China are seen as growth markets by automakers, as more people there enter the middle class and can afford to acquire an automobile. The introduction of the then-\$2,5000 Tata Nano came as a wake-up call to Western carmakers, who began developing their own super-cheap, micro cars, including...

Ford Motor Company of India that debuted its own Nano-fighter, the Figo, which is speculated to sell for around Rs400,000 (US\$8,335), four times the price of the "1 Lakh" Nano, which actually will cost more than Rs100,000 (1 Lakh). Presumably Ford's angle is that it plans the Figo, pictured below, as an up-sale model to the Nano. But both U.S. carmakers face stiff competition from Maruti and Tata, who are the dominate players in the market.



Here's a quick quiz question for you. Which country, China or India, exported more cars so far this year? If you said China, you'd be wrong. Between January-July 2009, India exported 201,138 cars to China's 164,800. How'd that happen? India's Economic Times asked.

What accounts for India's success? Visionary planning? Longterm strategy? No, India's triumph was completely unplanned. No planning document ever envisioned or planned for beating China.

Analysts say China has become a great auto exporter because of huge subsidies, an undervalued exchange rate and dirt-cheap credit. **Source:** Reuters **Published:** 25 Sep 2009 FPL and Duke Energy will convert company vehicles to plug-in and all electric vehicles by 2020.

Precious Lithium

Source: CNBC Business **Published:** 28 Sep 2009 Rebecca Wright gets up to speed on the debate over lithium, which has evolved from is there enough lithium to can we produce enough to meet demand.

Consumers Waiting Electric Cars As Cost Remain Issues

Source: Detroit News Published: 28 Sep 2009 Meanwhile companies from Frito-Lay to Duke Energy are moving to introduce electric-drive vehicles.

A123 In Talks to Settle Patent Dispute

Source: Bloomberg **Published:** 25 Sep 2009 Lawsuit pits the new publicly traded battery maker against the University of Texas and HydroQuebec.

How Indianapolis Is Reinventing Itself as the Electric Vehicle Capital of the Midwest

Source: Indianapolis Business Journal **Published:** 28 Sep 2009 Region's expertise in hybrid cars goes beyond high-profile players

Congress Buys Its First Hybrid Electric Peterbilt

Source: Peterbilt **Published:** 25 Sep 2009 The environmentally-friendly truck is slated to carry thousands of pounds of furniture and office equipment on the Capitol Campus and throughout the Greater Washington, D.C. area.

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SHARE With A Friend To send a copy of EVWorld Update to a colleague, friend or family member How then did this sector become world class? In the early 1990s, auto production was freed for investment by any domestic and foreign investor. Indian planners as well as foreign investors regarded India as a low-skilled, low-productivity country producing third-rate cars...

To their surprise, they found that Indian engineers had considerable skills, and could make improvements quickly and cheaply.

Bharat Forge, which makes auto forgings like crankshafts and axles, was among the first to realize that India's big advantage was not cheap labour but cheap skills.

This then is the secret of India's success. Don't waste time with strategic planning and picking winners. Simply let competition happen. You will be surprised how the most unlikely sectors can become world class. That's how India has just beaten China.

Reva in New York?

And while Ford and GM are putting the move on India, Reva is rumored to be talking about opening a plant in the United States, specifically in economically-depressed upstate New York. My colleague and friend Jim Motvalli picked the threads of a report out of the Syracuse's Post-Standard. According to a possibly 'over-eager' reporter, "the deal includes both state and federal incentives and is in its final negotiating phase." Potential funders refused to comment on the report, other than to say, "the deal isn't finalized."

If there is any basis to the report, the supposed plant in Onondaga County would produce the newly introduced NXR, four-passenger electric car.

Quicken the Pulse

Traditional carmakers debuted some eight models in Frankfurt, more than half of them electric, plug-in and conventional hybrids. About 7,000 miles away in Eugene, Oregon, tiny Arcimoto rolled out their 3-wheeled electric **Pulse**. The company has invested a purported \$100,000 and two years of time to develop the electric car, which has a range of around 50 miles, presumably using lead-acid batteries.

The company plans to build 300 editions in 2010. It has 10 pre-orders at this point in time.

Delaware Smart

The state of Delaware, across the river by the same name from Pennsylvania, has just passed the most progressive piece of electric CIICK SEND SAMPLE.

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EV World(tm) and EV World Insider are the copyrighted property of EVWorld.com,Inc., P.O. Box 461132, Papillion, Nebraska. Direct all inquiries to editor@evworld.com. Copyright 1998-2009 EVWorld.com, Inc. All rights reserved. vehicle-focused legislation to date. It amended its net metering law to allow owners of vehicle-to-grid-capable electric cars to be compensated for any electric power their car's battery pack returns to the grid. Delaware has been a hotbed for V2G activities because of the efforts of Dr. Willett Kempton and Len Beck, who have pioneered the field that Kempton and his co-author, Steven Letendre, innovated in the 1990s. Dr. Kempton, Director of the Center for Carbon-free Power Integration and a professor in the College of Earth, Ocean, and Environment at the University of Delaware. Beck works for the power company. Under their guidance, several AC Propulsion "eBox" electric cars found their way to the state. The cars have built-in V2G capability, allowing electric power to pass both ways between the battery and the power grid.

Following the lead of the plug-in-hybrid movement that helped demonstrate the feasibility of PHEVs, the Port of Wilmington's AutoPort has been begun converting Scion Xb's to V2G-capable electric cars using AC Propulsion technology. Basically, they are doing what ACP does in California. According to AutoPort President Roy Kirchner, the company hopes to build 100 of the \$75-80,000 cars. If they sell that many, it will be the largest concentration of V2G EVs in the world, allowing for early experimentation on the impact of such vehicles on the local power grid.

EV World Finally Plugs In

I recently got a telephone call from Kim Adelman, the founder and president of Plug In Conversions Corporation, saying he had a scoop for me.

Wow! I thought. He's going to tell me that he's just gotten a huge order for his Prius plug-in kit from some state agency or maybe from the federal government, or he and his programming partners have cracked the code on the new 2010 Prius, opening the door to offering conversions of Toyota's latest generation of its market leading hybrid.

"Let me grab my note pad, Kim," I replied, as I hunted through a stack of papers and magazines on my desk and reached for my Pilot pen.

"I am going to give you a pack," he simply said.

"I am sorry. What?"

"You know we've talked about this for sometime now," he replied. "So, I decided to go ahead and do it."

"Kim, I am speechless. That's extraordinarily generous of you. Thank you."

We discussed the logistics of when, where and how we'd do the installation, probably sometime early next month here in Omaha. (Our local community college has offered to make their automotive shop available for the project, which will take two days). Kim explained that he needs to come back to

Omaha install the HEM module in Omaha Public Power District's PICCequipped Prius. The module will enable their Prius to travel in electric-mode at speeds over Toyota's 35 mph limit when equipped with PICC's 6.1kWh NiMH battery pack.

As a reader of EV World, you know my wife and I raided our savings to purchase the 2009 Prius from Steve Woodruff at Autobeyours.com, with the ultimate goal being to *someday* convert it to a plug-in when we had the resources. Shortly after driving the car back from Indiana, Toyota's Irv Miller dropped me an email suggesting that I get one of the kit manufacturers to give me one, obviously for the PR value. While I would have loved a free kit, it's just not my nature to make that kind of request. Still, it wasn't a week later that Kim called with his "scoop."

You can imagine how excited we are. My wife daily drives the car to her job at Omaha Steaks ten miles each way. Kim's kit has an EV range of up to 20 miles, so conceivably she could drive five days a week and *never* use a drop of gasoline. Since the owner of the company has a Tesla Model S on order, I am hoping he'll be sympathetic to allowing her to recharge at work, but we'll see. When this happens, I believe ours will be the first privately owned plug-in hybrid in Omaha.

Kim and I will work out some type of advertising/promotional trade-in-kind, For starters, expect to see PICC become a corporate sponsor of EV World, as well as read regular performance reports on how the car does. And to Kim, a BIG THANK YOU!!!

Until next time, stay plugged into EVWorld...

Bill Moore____