# Bailout GM, But Here's What to Demand

Tuesday, 25 November 2008

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November 23, 2008
| 03:14 PM (EST)

As CEO of General ChrysFordCo, President-Elect Obama Can Use the Bailout to

Spearhead Renewable Energy and Rebuild America.

It's all but a foregone conclusion that a government bailout of the auto industry will happen, to save the millions of direct and indirect jobs generated by the Big Three. But unlike his predecessor who bailed out the banks, the new President ought to make sure that those receiving tax dollars use them in an accountable way to power a viable industry.

Buried in this debacle are possibly the seeds of a powerful wave that can regenerate not just the auto industry but the entire nation, from cities to farms. We can learn from, and follow, the example of how another major country saved its economy by transforming its automobile industry.

In the early 1980s, Brazil, like all other developing countries of the day, was having its economy destroyed by skyrocketing oil prices. Most countries chose to borrow money to buy the oil they needed, but Brazil took a different tack. Its government mandated that General Motors and other companies making cars in Brazil produce vehicles that were to be powered by alcohol-fuel engines. The government's thinking was that alcohol fuel can be produced domestically and inexpensively, avoiding the crushing payments for foreign oil.

The auto companies resisted, saying that they would never retool their factories for a pipsqueak developing nation. They were global companies and didn't make "boutique" engines for anyone. So the Brazilian leaders said, "Read our lips. It's alcohol engines or leave the country." Miracle of miracle, six months later, high-compression, high-performance alcohol-only vehicles began rolling off every car company's assembly line. After all, the changes from gasoline to

alcohol engines were simple: longer pistons, a modified carburetor, and different tuning, plus a cheap device to start the cars on cold mornings.

So while the rest of the developing world went into deep depression and debt, Brazil quietly avoided enslaving itself to U.S. banks and the World Bank, while simultaneously stemming the hemorrhage of capital out of the country to OPEC. Today, due to retaining its capital, Brazil is a powerhouse economy, no longer a developing country, with 85% of its vehicles running on alcohol. Alcohol is half the price of gasoline there. New gasoline-only vehicles are a thing of the past; older gas vehicles have to be converted to flex-fuel to have any resale value, and Brazil imports not one single barrel of foreign oil. In other words, they ate our lunch.

When Sweden mandated that most fuel stations in that country carry alcohol at the pump, GM's Saab division quickly engineered the model 9-5 to be an advanced flexible-fuel vehicle which essentially gets the same mileage on alcohol or gas; implementation involved little more than adding a smart turbocharger, and virtually overnight alcohol fueling became a reality. Now, GM Sweden is about to manufacture the first post-petroleum production vehicle, the Aeon sports car, which only runs on alcohol and gets something like 400 horsepower from a tiny engine (thanks to alcohol's 105 octane characteristics). The Swedish company Scania has been building heavy-duty bus engines that run exclusively on alcohol for nearly 30 years, powering city mass transit all over Scandinavia.

China announced this year that it is now building advanced high-compression alcohol engines similar to the Scania engines, so as to bypass high-priced diesel altogether; China recognizes that the U.S. is not going to let it anywhere near Central Asian oil or even much of the Mideast oil. The engineering for these engines originated in work done by our own Environmental Protection Agency which attained 22% better mileage than diesel engines using straight alcohol. So now China is eating our lunch too, using our own bologna.

If the new CEO of General ChrsyFordCo, President Obama, were to mandate, as part of the bailout, that all U.S. vehicles beginning in July 2009 are required to be flexible fuel, i.e., able to run on both alcohol and gasoline, all it would take is the reprogramming of vehicle computers. There would be no capital investment costs at all.

As I recommended in my book, Alcohol Can Be A Gas a year ago, predicting this collapse, our new CEO should also demand that by 2010 all cars sold in the U.S., no matter who makes them, should be advanced flex-fuel vehicles able to run not just on E-85 (85% alcohol) but also on E-100 (straight alcohol -- no gas) with coldstart devices installed. This might add a few hundred dollars to the cost of building a car, but it has huge implications for the nation's economy. Chrysler is sitting on a patent using a semi-conductor to heat fuel injectors instantly; this would be an elegant and inexpensive way to coldstart an alcohol vehicle down to 50 degrees below zero. It would eliminate the

current flawed approach of including 15% gasoline in E-85 to permit coldstarting without devices.

Also, by 2011, all vehicles should be at least as efficient as the current GM-Saab and get equal mileage on either fuel. By 2012, we should be implementing the same diesel-like alcohol engines the Chinese are now building, and they should be available for all our car lines, increasing mileage dramatically virtually overnight. None of this requires any new breakthroughs, and all of it can be implemented in short order.

Since the Big Oil propaganda about food versus fuel has now been proven to be demonstrably false, alcohol fuel production is exploding all around the world. By joining up, the U.S. would not only be saving itself nearly a trillion dollars a year in oil imports but would reestablish itself as an exporter of vehicles rather than a major importer.

But that's the tip of the iceberg. By having such a huge new market for alcohol fuel, entrepreneurs in the U.S. would rise to the occasion by producing lower-cost alcohol fuel from all sorts of non-corn sources. In Alcohol Can Be A Gas, I cite Department of Energy studies which conclude that such a conversion would generate at least 26 million new, permanent, non-exportable American jobs. That's a lot more than all the jobs Bush destroyed during the disastrous last eight years.

The cost to do all this, including building enough alcohol fuel production plants to power the entire country, would be less than $200 billion. This figure even includes building alcohol fueling stations independent of the current oil-company-owned stations. A year ago, that might have seemed like a lot of money, but compared with the recent bank bailouts and the $700 billion dollars we have militarily spent to secure Iraq's oil for US companies, it would be the bargain of the century.

So, properly leveraged, a couple of dozen billions to bail out the auto industry could end our dependence on foreign oil (saving trillions over time), end unemployment in the U.S. for the foreseeable future, and reverse global warming by eliminating fossil fuels from transportation. All CEO Obama has to do is to make the bailout contingent on General ChrysFordCo committing to be the spearhead of his renewable energy program. Requiring this simple, currently available alcohol-fuel technology, to be part of all American vehicles would generate a cascade of commerce that would rebuild both urban and rural America, permanently, sustainably, and economically.

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