

Warren Buffett predicts that we'll all be driving electric vehicles (EVs) in 20 years. The Oracle of Omaha knows a thing or two about sound investments and he's placing his bets on EVs. It makes economic, environmental and energetic sense. What doesn't make sense is the dismal record of Buffett's native land to capitalize on this insight.

Electric vehicles exceed the energy efficiency, environmental, and economic virtues of their conventional counterparts. Internal combustion engines have less than half the 95% efficiency rate of EV motors. The latter are also less carbon intensive: even if the electric grid that charged EVs were entirely coal-powered, EVs would still emit less carbon emissions than petroleum-burning cars. EVs are consumer friendly, requiring less maintenance and sporting a significantly lower cost of ownership for budget conscious Americans. Beyond the cost benefits of electricity over gasoline, EVs, like solid-state computer drives, have fewer moving parts and hence less need for service and repair. At a more macro level, EVs do not require the same massive infrastructural support as liquid fuels. More public EV plugs will be needed, but a home garage plug will suffice for the charging needs of most commuters. Moreover, when combined with a smart grid EVs might serve as energy reservoirs that could be tapped during peak electricity demand. Finally, EVs can empower America to make significant headway in weaning itself off its oil addiction. Indeed, transportation accounts for over two thirds of total U.S. oil consumption.

In 2008, Berkshire Hathaway made its foray into the EV market by investing \$232 million in 2008 for a 10% share of BYD, China's number one battery and electric car company. That share is now worth almost \$2 billion. Berkshire's record gains from this investment flow from BYD's innovations in the EV industry, including a breakthrough in lithium ion ferrous phosphate technology and a plan to produce the world's first mass-produced plug-in hybrid.

BYD's (and Buffet's) good fortunes are also a sign that China is doing something right: it is thinking big about bold investments in EVs. The Chinese government has made "independent innovation" in the EV industry a national goal. By 2011, Beijing plans to invest \$1.5 billion dollars in EV R&D, to convert entire government and taxi fleets into EVs, and to incentivize local government and individual EV purchases through rebates and tax credits of more than \$7,000 per passenger vehicle and up to \$86,000 for trucks and buses. The Chinese government wants its domestic manufacturers to produce half a million EVs by the end of next year to secure China's place as a leading EV producer and exporter.

The U.S. goal is strikingly less ambitious. President Obama has committed \$2.4 billion in stimulus funding for EV and battery R&D to help pave the way for domestic production of 1 million EVs by 2015 (0.5% of our vehicle fleet). In the 1990s, when Chevy produced its S-10EV, GM its EV1, and Ford its Ranger EV, the U.S. seemed poised to dominate the EV market for years to come. Fifteen years and an \$80 billion bailout later, the Chinese have picked up where America left off and are happily eating GM's lunch.

There is hope for American producers and the Obama administration though. It's not too late to develop and implement a comprehensive energy strategy that places 21<sup>st</sup> Century technologies like smart energy grids and EVs where they rightfully belong. Washington has to recognize that the electric stakes are high. Fortunately, there are rays of hope coming from the Department of Energy, which has granted Tesla almost half a billion dollars in loans to develop a mass-market version of its pricey high-tech all-electric Roadster sports car. Let's hope this is a first step for the U.S. auto industry towards regaining a competitive edge in the EV market. After all, the U.S. shouldn't trade its dependence on foreign oil for one on foreign green technology.

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