



Don't Bet the House on Electric Vehicles

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When I was a kid in the early 1980s my dad stuck solar panels on our roof to combat the energy prices of running a home with eight people in it. The eye-sore solar panels were four five-foot metal half-pipes that tracked the sun during the day. No other house in our neighborhood had them. I don't know how much the contraption cost, but it always seemed to be broken and, given the paucity of sun in Ohio in the winter, didn't do much to cut our family's energy bill. Years later, the new owners tore the panels off the roof.

I think about those solar panels a lot given the cult-like belief in electric vehicles (EVs), not to mention wind turbines and solar cells. Recently, word "leaked" out that Honda planned to build a substantial EV battery plant in the Greater Columbus Area. Due to Ohio's two decade-plus weak jobs economy, I unequivocally welcome any jobs such a plant would bring to Ohio, as we need all the jobs we can get.

My concern with the proposed EV battery plant, as with EVs generally, is that the precious metals needed to build EVs and their batteries pose serious, but rarely discussed, environmental issues for America and the world. Specifically, experts estimate roughly 500,000 pounds of earth need to be mined to find the precious metals needed to build just one EV battery. Today, there are 210 million cars in America, with about 1% of those cars being EVs. If, as left-wing California Governor Gavin Newsom dictates, America will stop building gas-powered cars by 2035, imagine the amount of mining that will have to occur to find enough precious metals to build over 200 million EV batteries.

With the over-the-top NIMBY outrage coming out of Martha's Vineyard over the arrival of a mere fifty illegal immigrants, it is pretty clear that mining for precious metals won't happen in North America (or Europe for that matter—heck, they don't even allow environmentally-neutral hydraulic and horizontal fracturing). So, where will the mining be done to find enough precious metals to supply America with the material to replace its entire fleet of gas-powered cars with EVs? Don't forget, the rest of the world also will be trying to find those same precious metals for their EVs, as well as other applications in which precious metals are needed.

Set-aside the fact that China currently controls a large share of the precious metals market, this global rush for precious metals will result in two deeply problematic outcomes. First, the developed countries will decimate the developing and underdeveloped countries as they destroy large swaths of those countries to get their precious metals. Will America's EVs be

powered on the backs of child and slave labor from Africa, Asia, and South America? Will EV makers and their ardent political supporters insist on the same health, safety, and labor standards in the places from which their metals are mined? Or, like the faux sanctuary city status of Martha's Vineyard, will EV drivers merely virtue signal about all of those things with signs in the well-manicured front yards of their multi-million homes?

Think about how much CO2 and other emissions will be generated by all of that mining, or the particulates released into the atmosphere from heavy machinery throwing around so much dirt. Moving the precious metals from Africa, Asia, and South America also will generate enormous CO2 emissions and other noxious air and water pollution. And don't forget the environmental harm done when EV batteries need to be properly disposed of once they no longer hold a charge—just like your smartphone battery.

And, let's recall that China is adding coal-fired power plants at a rate that outstrips our mothballing of them. As Rupert Darwall wrote in *The Spectator* in "China, Not America, Has the Real Emissions Problem":

The slight rise in Western emissions in the convention's first decade has been more than offset by a far larger decline over the subsequent eighteen years, so that the West's emissions in 2020 were 18 percent lower than they had been in 1992 (and pre-pandemic 2019 emissions were 10 percent lower). Over this period, **for every ton of carbon dioxide the West cut, the rest of the world emitted an extra four.**

As a result, the world is fundamentally different from how it was in 1992. Back then, Western nations accounted for 63 percent of global carbon dioxide emissions. In 2020, that figure had fallen to 33.5 percent. America's share dropped from 23 percent in 1992 to 13.5 percent. In the climate convention's first decade, non-Western emissions grew by 39 percent, and then accelerated sharply from 2002, overtaking the West in 2006 and very nearly doubling it in the eighteen years to 2020.

Among non-Western nations, China's carbon dioxide emissions tripled, and its share of global emissions rose from 12 percent in 1992 to 31 percent in 2020. **The math is inescapable: what America and the West do is of diminishing relevance to global emissions and therefore to future global temperatures.** (emphasis added)

Global warming isn't truly a problem that western democracies can solve. We've more than done our part. Critically, the significant decreases in the U.S. didn't come from driving EVs; rather, those decreases almost entirely came from switching from using coal at power plants to natural gas, which many consider to be a green energy source given the environmental cost-benefit analysis of it. Instead of leveraging its ability to be energy independent, America is unilaterally disarming itself in the global energy fight if it continues to abandon natural gas and

nuclear energy as its prime energy sources. Increasingly, global warming is a problem emanating from the very places we expect to harvest the precious metals we need in a manner that likely will increase global environmental damage at a greater rate than our environmental zealotry will reduce it.

Secondly, with demand high and supply low or controlled by non-friendly states, prices will skyrocket. The global rush for precious metals will only drive prices HIGHER for all elements of the supply chain. Bjorn Lomborg, President of the Copenhagen Consensus and author of *“False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet,”* recently wrote:

The International Energy Agency projects that if electric cars became as prevalent as they would have to be for the world to reach net zero by 2050, the annual total demand for lithium for automobile batteries alone that year would be almost **28 times as much as current annual global lithium production.**
(emphasis added)

For consumers, that means the price of an EV will only go up. EVs already are priced well beyond the reach of most Americans. With the average age of those 210 million cars sitting at just under twelve years, does anyone really believe that the majority of Americans who cannot afford an EV today will allow themselves to be forced into buying an EV in the future when they replace their cars?¹ What about the cost of installing a charging station in their homes (powered by natural gas or nuclear power)? How will apartment dwellers charge their EVs since apartments don't come with necessary charging stations?

Governments have to subsidize EVs today so that wealthy people will buy those cars. With America's national debt north of \$30 trillion and counting and inflation crushing Main Street America as Washington prints ever more greenbacks, the financial ability of the federal government to subsidize 210 million car purchases will plummet. For some zealots, the move to subsidized EVs isn't enough. In a recent op-ed, Los Angeles Times letter editor Paul Thorton tore his hairshirt over his purchase of an EV in “Driving an EV Does Not Make You Pro-Environment” and implored us to go even farther:

But electric vehicles, like gas-powered cars, require vast expanses of concrete and asphalt for automotive use... And electric vehicles, like gas-powered cars, force their drivers to sit in the same traffic jams as everyone else, often on freeways that required the bulldozing of long-established, minority communities to be built...And electric vehicles, like gas-powered cars, needlessly kill people. In the city of Los Angeles, a record 294 people were killed in traffic in

¹ Don't even get me started on doing a road trip in an EV with a few kids. Can you imagine stopping for several hours to recharge your EV battery on a ten-hour drive from Ohio to Hilton Head Island? The already annoying chants of “are we there yet?” will become a roar of tantrums, crying fits, and screaming teens. Marriages might be destroyed in the chaos.

2021...Children living near freeways have higher rates of asthma, and trading internal combustion engines for electric motors would certainly help them...But replacing one kind of car for another isn't enough if cities like Los Angeles want to be anything other than traffic-choked dystopias...Build out a big public transit system (L.A. is trying), and make it free, reliable and safe. Subsidize the purchase of electric bikes, which make it easier to commute longer distances on devices that use considerably less power and road space than electric cars.

As they say, give an inch and your opponent will take a mile. Today, gas-powered cars must go; tomorrow, all cars must go.

Before we get too far down the EV road, perhaps a little common sense should guide us. The reality is EVs aren't much better for the environment than gas-powered cars and the global warming benefit gained by EVs is *de minimis* in the grand scale of things. As Lomborg noted:

If every country achieved its stated ambitious electric-vehicle targets by 2030, the world would save 231 million tons of CO2 emissions. Plugging these savings into the standard United Nations Climate Panel model, that comes to **a reduction of 0.0002 degree Fahrenheit by the end of the century.** (emphasis added)

Perhaps it makes more sense to build on the gains we've already made. Instead of going all in on EVs, we should invest greater resources in technology to make gas-powered cars even more environmentally friendly versus putting all of our eggs in the EV basket given the impact EVs will have on the environment, on the people who live near and work in the open pit mines, and on the pocketbook of most Americans. As with the environmental scaremongering involved in pushing the west to abandon its massive natural gas resources, we need more common sense and cost-benefit analyses on EVs.

The world will always have people like my dad who jump on the next trend no matter if it actually makes sense. If EVs are as great as Elon Musk and Newsom claim they are, then market forces, not government subsidies and coercive mandates, should drive their success. Once enough people realize how much environmental and human destruction will be done to build and to power EVs and how much those EVs will cost them, the EV mania will subside and likely become little more than a niche market for the wealthy just like hyper-cars.

If I were you, I wouldn't bet the house on EVs or their batteries...unless you're shorting them.